

THE IRON AND TIN DEPOSITS OF TUSCANY. CAMPIGLIA MINING DISTRICT—No. II.

By BRENTON SYMONS, F.C.S., Assoc. M. Inst. C.E., &c.

Generalising, the deposits may be considered as occurring in those beds of the Lower Lias which lie nearest to the eruptive rock. It is therefore a little perplexing that the superior or white marble beds, high up the flanks of Monte Calvi and the Poggia d'Acquaviva, have been penetrated by profound excavations, the connection of which, with the eruptive rock, seems somewhat remote. On the southern slope of Monte Rombolo, however, large cavations presenting similar features exist in the metamorphic limerock lying in close proximity to the trachyte. It is, therefore, fair to assume that all are due to the same sequence of disturbances. A close examination of these old workings did not with certainty reveal the metal which was the object of exploitation, as, however, at a mine known as Rogers' Tin Pits, an ancient hollow similar to the larger ones, though only partially stopped away by the old men, contains oxide of lead. It may be that the Etruscans sought after that metal. Limonite of good quality may be observed throughout the ramifications of these caverns, which reach a depth of about 300 ft., but in no case is there evidence to indicate that this mineral was an object of industrial pursuit. Ferruginous ores are found all over the district cropping up in masses of small extent, but often large deposits are found of good limonite, worth 50 per cent. of iron. As in Elba, ilvaite is occasionally mingled with the oxides, and this is especially the case at the valley of Temperino, where 3000 tons of iron ore were quarried and transported to England before its siliceous character was sufficiently recognised. The most important deposits in the vicinity of Monte Rombolo are distinctly connected with the two elvan courses which cross the whole width of the uplifted limestone beds. Undoubtedly large quantities of ferric oxides and galena might be obtained by exploiting the mines commenced along the line of elvans, yet no confidence can be felt that the ores will be found to have penetrated deeply, because many indications evidence the proximity of the trachyte, the apparition of which would probably be fatal to the continuation of these deposits in depth.

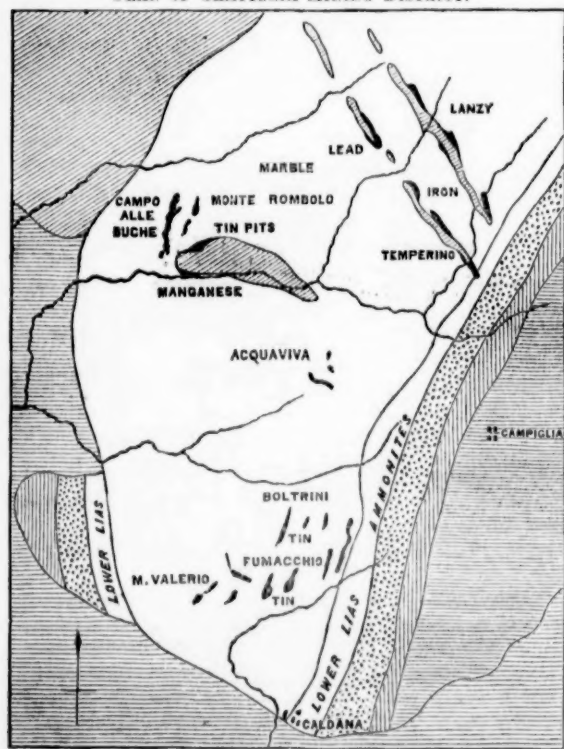
In the southern portion of the district—at Acquaviva and Monte Valerio—neither elvan nor eruptive rock have as yet been observed, notwithstanding the profundity of the valleys. The calcareous strata are not so much affected by disturbance, and the irregular fractures found in them are short, and have not that appearance which betokens depth. Here, as indeed throughout the Campiglia district, the iron veins are never found of great magnitude, being usually from 1 ft. to 4 ft. wide, though occasionally they bulge out for an inconsiderable distance to a larger size, and especially so where the veins are much split. Monte Valerio is the only iron mine that has been extensively worked in the district, some 10,000 tons of 50 per cent. limonite having been sold, but the exploitation seems to evidence that the rocks contain no important deposits, as the veins are not persistent either in length or depth.

It is remarkable that the rocks of Monte Valerio and Fumacchio, though not so mineralised as those of Monte Rombolo, enclose an unexampled deposit of rich tin ore in the water-worn clefts of a stratum of white limestone, having no apparent connection with any other kind of rock. With the exception of the Fumacchio Tin Works and the Monte Valerio Iron Mines but little enterprise exists in the whole district. At the Monte Rombolo Lead Mine two miners are employed, and a few workmen are engaged in piercing a tunnel 300 metres long under the Rocca del Castello, for a future railway which is to connect Somoroto and the mines with the coast at Porto Baratto, a small bay partially sheltered by the elevated promontory on which are situated the ruins of Popolonia.

The means of communication throughout this mining region, *malgré* its mountainous character, must be considered good, as it is only for short distances on the mines that the roads are so rough as to cause difficulty in the transport of mineral. The "barracho" of the farmers has up to the present been utilised to convey the ores to the shipping station at San Vincenzo, at a charge varying with the distance of one to two and a half francs per ton. The transport cost might be lessened a little by improving the occupation roads which lead from the principal thoroughfares to the various mines. If the iron production of the district should ever assume sufficient importance to guarantee the construction of the railway proposed by Mr. W. Rogers—whose exertions to open up the mines have been great and unceasing—a considerable economy would then be effected in the transport and loading charges. Were all the veins now opened energetically worked they might be made to yield about 2000 tons monthly of very good limonite, and this output by the exploration and exploiting of other deposits could be much increased. It is, however, to be feared that the smaller veins would scarcely admit of their being profitably worked unless high prices ruled.

To the north of Monte Calvi the lands are the private property of Count Alliata, and have not yet been examined for minerals. As the rocks are similar to those of Monte Rombolo, and are also traversed by dykes of granitoid, there can exist little doubt that they are metalliferous. To arrive at a clearer perception of the mode of occurrence of the interesting gangues of Campiglia, a geological sketch is appended, which though inaccurate—from want of time to make complete surveys—will exhibit with sufficient distinctness the relations existing between the rocks and the associated metalliferous depositaries. Scale, 70 chains to an inch.

PLAN OF CAMPIGLIA MINING DISTRICT.



Alluvion—Thin Horizontal Lines.
Eocene—Double Horizontal Lines.
Cretaceous—Vertical Lines.
Upper Lias—Dotted.
Metamorphic Limestone—White.
Eruptive Rock—Diagonal Lines.
Metallic Deposits—Black.

MINES OF MONTE ROMBOLO.—The tract of mineral ground, the property of Mr. W. Rogers, includes the whole of the Monte Rombolo mountain, which attains at its summit an elevation of about 1300 ft. above the level of the sea. So little has been done here that the shallow workings scarcely merit the name of mines, but lead and iron ores have been exposed in some quantity at three points, viz.:—The Tin Pits; Buca di Capri; Rocca di Silvestro.

At the time Mr. Rogers was engaged in clearing out the old cavern, which he afterwards called "The Tin Pits," the mine of Ciento Camerelli, a short distance to the south, was yielding a heavy mineral somewhat resembling that he was raising from Monte Rombolo. Both these ores were then unknown to the native miners, who, being unacquainted with tinstone were far from suspecting its presence in the beds of crystalline limerock. After the discovery that the Fumacchio ores contained more than 60 per cent. of black tin, Mr. Rogers jumped to the conclusion that his ores were similar and equally valuable, notwithstanding that the enclosing rocks and mode of deposition were of a totally different character. A sample of each class of ore was taken and carefully examined by the writer on the vanning shovel, but in no case was tin ore detected; but analysis having proved the unknown mineral of "The Tin Pits" to be an oxide of lead, it does not follow that there may not exist mingled with the ores small percentages of stanniferous oxide, though the difference of the specific gravity of lead and tin oxides is so slight that it will be found extremely difficult if not impossible to separate them by any dressing appliances.

The deposit was first observed in some old cavities of inconsiderable extent at the western limit of the eurite or elvan rock, where the Fucanaya valley loses its ravine-like appearance and debouches on the plain of San Vincenzo. The ores have been deposited at the contact of the eurite with the metamorphic limerock, and have assumed much of the character of a true vein, which follows the east and west line of junction for a known distance of 100 fathoms, and with the eruptive rock for a footwall, hades to the north at an angle of about 50°. The greatest width of lodestuff is where the ancient fashioned the old caves which led to the modern discovery of the mines, and from which they were peradventure driven away by some political revolution, as no large quantity of the mineral was found to have been removed.

The present owner has devoted his attention to exploration, and has exposed the deposit of lead for a length of 30 fathoms and a width of about five fathoms. It is associated with a large vein of limonite, which, more persistent than the bunch of lead ore, continues east and west for some distance, gradually dwindling to ribbon-size, and finally disappearing, when the eurite comes into direct contact with the limerock, showing, however, along the junction occasional traces of mineralisation. The prickly "macchia" or thick brushwood renders prospecting painful, but it is probable that a careful examination of the eastern portion of the boss of eruptive rock would reveal similar contact deposits. Consequent on the irregular working of the tin pits the excavations are singularly tortuous, but they are sufficient to make manifest the existence of considerable masses of lead and iron oxides. The iron ore piled on the dump appears of good quality, and being of a porous nature could be easily run through the furnace. The mine is at present shallow, but the cave-like deposit may be presumed to have a profundity approaching that of the neighbouring "buca." The sunbeams falling through the huge cavernous apertures upon the resinous and translucent minerals beneath, give birth to a variety of sparkling shades of brown, green, yellow, and grey, which contrast pleasingly with the dark shadows produced by the deep ruggedities of the quarry-like excavation. The ores are granular where not cemented by calcareous matter, though generally they may be termed incoherent. As is usually the case in deposits of this class the ores are of a varying and complex composition. This may be seen from the analysis below, which were taken, one from the greenish and the other from the grey portions of the gangue. These estimations were made in the laboratory of Messrs. Hollway Brothers.

ANALYSIS OF MONTE ROMBOLO LEAD ORE.

	Green Ore.	Grey Ore.
Binoxide of tin	3.25	2.17
Sesquioxide of iron	1.71	6.43
Oxide of lead	39.12	7.99
Arsenic acid	14.54	3.98
Phosphoric acid.....	.15	1.42
Chlorine	1.41	.37
Carbonic acid.....	16.44	23.77
Lime	20.92	30.28
Alumina34	4.92
Magnesia.....	.58	4.12
Silica16	10.33
Oxide of zinc.....	.35	1.41
Protoxide of manganese.....	—	.37
Sulphur	—	.28
Combined water60	2.37
	99.57	100.21

It would appear then that the ore must be—at least the greenish portion, an arseniate of lead—a mineral found in the Cornish mines, and formerly at Beeralston in Devonshire. The light shade of the second sample of micetite is no doubt due to the larger admixture of limestone, silica, &c.

A TRIP TO COLORADO—No. VIII.

By THOMAS CORNISH, M.E.

Author of "Gold Mining, Its Results, and its Requirements."

In briefly noticing the other States and territories represented at the great Mining Exposition at Denver, New Mexico claims special notice. It lies south of and adjoining Colorado, with a continuance of the Rocky Mountains intersecting the country. New Mexico, while now reckoned as one of the coming great mining centres, is also one of the oldest mining districts of America. Gold and silver were mined for over 300 years ago, and from the Mina del Tiro, near Santa Fé, the precious metals were taken to Old Mexico, records of which are still preserved. In addition to the excellent and varied collection of mineral ores representing nearly 400 mining properties, weighing 14 tons and valued at \$16,500, there is a collection of old Aztec mining implements, including hammers, chisels, wedges, &c. Such old relics of mining industry recalls to vivid imagination of the beholder the difference of the mode and speed of mining operations in those days and of the present time. In the olden days the mines had to pay tribute to the priests and Spanish princes, and many months, if not years, must have elapsed between raising the ores from the mines and the gold and silver arriving in Spain. If the mines were worked in those days by joint-stock companies the shareholders must have been more patient than even the shareholders of some of the Indian and African mines of the present day, and the resident managers were not alarmed by exciting telegrams from anxious directors wishing to know if "visible" gold could be seen by the "naked eye." Nor did the managers rush back replies that invisible gold could be seen in the stone by a magnifying glass of 100-horse power, and that they would soon be sending home big returns, which often ended in either themselves, the invalid miners, or the useless machinery being the "return" products.

If any record of the prospectuses of the 16th century are in the archives of Spain or Mexico it would be interesting to compare them with those of the present era, and see if a similar race of "professors" of puffing propensities existed in those days, as have in later days prognosticated such wonderful results to the unfortunate shareholders of mining companies that could be mentioned.

The exhibits at the Exposition, and the description of the mines and lodes of ore from whence derived, the information from practical miners, and statistics of the yields, fully demonstrate the fact of New Mexico being a rich mineral country, and will probably realise what a correspondent has written me from Silver City—"The new mineral discoveries have of late opened the eyes of the mining community to the fact that this is what the great Humboldt declared it to be, 'the treasure house of the globe.' Immigration is flocking to this country in thousands."

The Lake Valley makes an excellent display from the Sierra Grande and Sierra Bella properties; some of the antimonial galena is of a very high grade, said to assay from 600 to 1000 ozs. silver per ton. The Goodenough Mine has some samples of ore valued at \$3800 per ton; this should, if permanent, be good enough for anyone. The Santa Rita del Cobra Copper Mines have a fine display of native copper, and various other mines are well represented.

Utah Territory lies due west of Colorado, and is most noted as the home of the Mormons, who having travelled, as they thought at the time, far enough west to be out of the reach of the United States authority, founded a settlement near the Salt Lake; the privacy of these settlements have been thoroughly invaded since the opening of the Union Pacific Railway. Utah possesses a large extent of country, being about 325 miles in length by 300 miles in breadth, its land area being about 84,970 square miles, it is intersected from north to south by the Wasatch Mountains, the plains are exceedingly fertile, the mountains rich in minerals, and the climate is said to be delightful. The exhibits represent various kinds of ores from about 300 different mines. Gold and silver mining has been carried on with considerable energy since its first discovery there 12 years ago; since then the production of bullion from Utah has been \$60,000,000. There are 25 mining districts, and from some of them the yields have been, and are now, remarkably rich. From the Silver Reef district several noted mines are represented. The ore is a sandstone, of varying colour, from reddish grey to black, and extends over a large area of country. The Horn Silver Mine has a varied and extensive display of ores, showing galena, chlorides, and carbonates. The average of the smelting ores is 38 per cent. lead, and 51 ozs. silver per ton. The output of the property has been about \$6,000,000, from Jan. 1 to Aug. 1, 1882, the yield was \$2,061,610. The famous Ontario Mine has a display of rich ores from the different workings; the prevailing mineral is zinc blende, with some silver, copper glance, and native silver. The production of this rich mine for four years has been stated to be \$11,000,000. Many other mines are well represented, showing ores of high grade, and from the description of the mines will no doubt prove of great value. The accounts of the enormous bodies of rich ore in sight, or opened up ready for working, in some of the mines of Utah are almost startling. I have it stated to me on good authority that in the Jordan group of mines there is over 1,000,000 tons of gold ore exposed for immediate working, worth \$27 per ton. The details of the workings of this group of mines has been submitted to me, and show that it has been well developed. The mines are to be worked on an extensive scale, a new 60-stamp mill being erected for the purpose. The property is likely to be sold to an English company, and as the price is reasonable the shareholders will have a splendid investment.

Wyoming Territory lies north of Colorado, and has not yet so extensively developed its mineral wealth as some of the older States, but has a very fair representation of its various resources in gold, iron, and copper ores from some 85 mines. Gold appears to be found in a large section of the territory in strong veins from 2½ to 30 ft. in width, and from the different accounts the yields are of a good average. The deposits of iron ore are said to be extensive and varied in character, and likely to be of great value to the territory. Large deposits of sulphur of a superior quality are found near Evanston, as also in Yellowstone Park.

Sulphate of magnesia is also exhibited: gypsum, mica, and asbestos. There is also a display of coal, rock-salt, and crude petroleum, the exhibits altogether forming an interesting collection.

Dakota Territory. "The Black Hills," lately the home of Sitting Bull and his tribe of wild Indians, was for some years looked on as a veritable El Dorado; but the fierce and war-like nature of the Sioux, and the protection afforded them by the United States troops for a long time, prevented a rush of miners to these gold fields. A party of miners was known to have entered these hills in 1849, but never returned, and are supposed to have been killed by the Indians, as in one of the gulches they found the remains of two huts, blazed and bullet marked trees, and a chain deeply embedded in a pine tree, as also indications of mining operations. It was not until 1875 that the miners were permitted by the Government to enter into the Sioux Indian country, and then a regular rush set in; but it was not particularly safe or pleasant, for during 1876-77 there was continual skirmishing between the Red skins and White men. The miners were well armed, guards had to attend stock while grazing, pickets had to watch the outposts, and men went about their work with arms in their hands, but many who went out prospecting alone or in small parties got picked off.

The Black Hills makes a good display from some 80 mines of the vast mineral wealth contained amongst those auriferous mountains and gulches, which cover about 100 miles long by 50 miles wide; the principal mines are in the "great gold belt," and comprise the Homestake, the Highland, the Deadwood Terra, the Father de Smet, and others. The chief characteristics of these mines are that they have developed enormous quantities of low grade ores. The Homestake Company have milled 684,733 tons of ore already, averaging a little over \$6 per ton, giving a total production of \$4,367,180. The Highland Company have milled 234,081 tons of ore, at an average of a little over \$5 per ton, with a total production of \$1,175,632. The Deadwood Terra Company have milled 249,329 tons, at an average of \$4.90, total yield \$1,221,946. The Father de Smet Company from January, 1878, to August, 1882, milled 343,894 tons, at an average of \$5.71, total produced \$1,974,640, the yields from other mines on this gold belt bringing up a grand total of \$10,434,116. At Lead City the Homestake Company has two mills of 80 and 120 stamps, the Highland Company one of 120 stamps, the Deadwood Terra Company two mills of 80 stamps each, and the Father de Smet a mill of 100 stamps. As an illustration of the large amount of pay ore in the district, I find it stated that there are now already erected 1725 stamps and a 30 ton smelter. With large bodies of low grade ore and every facility for economical mining and crushing handsome profits are being made throughout this district. The Sitting Bull Mine exhibits two classes of silver ore, said to average \$450 per ton. Several other companies also show fine samples of silver ores. Placer mining is also likely to become a prominent feature of the Black Hills district, as large deposits of gravel and cement of a highly auriferous character has been discovered.

Idaho Territory is represented by exhibits from over 100 mines; and although it has not attained such great eminence as other mining States, its yield of mineral has been estimated at \$95,000,000, there are some very handsome exhibits shown, some said to assay from 300 to 4000 ozs. silver per ton. The Jay Gould has a fine specimen 800 lbs., beautifully covered with native wire silver. The Ramshorn and Bulls Wood have also excellent displays of rich ores. The Atlanta shows a fine piece of ore of ruby, brittle, and native silver, said to be valued at the rate of \$13,924 per ton. Montana Territory is represented by some 55 mines, and well representing the growing importance of this part of the country. The Alice Mine displays some good specimens of silver ore from its rich and extensive mine. The vein is large and strong, having a pay streak 20 ft. wide, producing 60 tons of ore daily, averaging \$55 per ton, or about \$90,000 monthly. The mine has already paid \$400,000 in dividends; the ore is treated in a dry crushing chloridising mill, which is said saves 94 per cent. of the silver, and is said to be the largest mill of the kind in the world. The shaft of this mine is 700 ft. deep, and has 8000 ft. of development work done.

Many other mines are also well represented. The Anaconda has a fine display of copper ore, ranging from 15 to 60 per cent. copper and a little silver. The Bell has beautiful specimens of ore, one piece assaying \$1250 silver and 40 per cent. copper per ton. The mines in the Butte district are producing 500 tons of ore daily.

Nevada has not a large display, but is represented by 150 mines. The fame of its celebrated mines has become so well known that little need be said in recapitulation of its enormous treasures. Excellent samples are shown from the Belcher, Ophir, C and C, Gould and Curry, Consolidated Virginia, Union Con, and Kentuck; the latter sends a piece 375 lbs. weight, said to average \$163 gold and \$1215 silver per ton. The Comstock has produced over \$250,000,000 in bullion, and paid \$116,000,000 in dividends. The deepest shaft in the Yellow Jacket is 3020 feet. A number of other mines are well worthy of mentioning, but time nor space will permit of my saying more of the Denver Exposition at present.

Meetings of Public Companies.

KIMBERLEY NORTH BLOCK DIAMOND MINING COMPANY.

The first annual general meeting of shareholders was held at the Cannon-street Hotel, on Friday, Nov. 24.

Lieut.-Col. G. COXON in the chair.

Mr. THOS. J. SEEL (the secretary) read the notice convening the meeting, and the report of the directors and statement of accounts were submitted. The accounts extend from May 26, 1881, to June 30, 1882, and show estimated net outlay for mine cost 40397. 9s. 9d.; London expenses, 13157. 9s. 3d.; interest and exchange, 1294. 17s. 8d.; machinery maintenance, 4551. 15s. 7d.; ditto depreciation, 5947. 13s. 7d.; 55557. 5s. 10d. On the other side of the account there are—Diamond finds, 885 carats (12½ carats for 1013. 16s. 3d.), 16074. 11s. 3d.; blue on floors at cost of hauling and depositing, 4507.; transfer fees, 177. 12s. 6d.; leaving balance, 44907. 2s. 1d. The available cash balance at June 30 was 6597. 5s. 11d.

The directors report in explanation of the expenditure account that work on the blue ground (or diamondiferous soil) was not commenced until June 17, the accounts being taken to June 30, and consequently the total revenue derived by the company up to that date was: Diamonds from 253 loads of blue ground which accidentally fell from this company's claims into those of the British Company, sold for 613s. 3d.; diamonds on hand, June 30, 5937. 15s.; blue ground on floor, June 30, 1600 loads, at estimated cost of hauling and depositing at 6s. per load, 9600s.; transfer fees, 177. 12s. 6d.; equal to 21057. 3s. 9d. The directors therefore recommend that the balance at debit of the expenditure account, amounting to 44907. 2s. 1d., be carried forward to be dealt with hereafter. The amount of 7207. 17s. 8d. charged for cost of removing reef on claims when purchased, consist of the estimated proportion of expenditure incurred in making preparations for hauling, and of the cost of hauling the large quantity of reef on the claims at that time. The estimated proportion of expenses connected with subsequent falls of reef has been charged to expenditure account. The difficulties—the principal being the existence of a large lump of main reef, estimated at 200,000 loads, which had to be cut down by the Mining Board before the hauling gear could be fixed—in the procuring of machinery—which, owing to the great demand and consequent scarcity, had to be shipped from England—the failure of transport and scarcity of native labour, the preparatory work of clearing the claims was not fairly commenced until about Sept. 16, and was again seriously interrupted on Oct. 13 by a great fall of reef, estimated at some thousands of loads, and involving a further delay of some months, so that the preliminary operation of hauling reef was not begun until Dec. 9; but even then continuous hauling was found impossible, owing to the constantly recurring falls, which, rendering the main reef dangerous, necessitated the stoppage of all work on the claims until such time as it could be made safe.

Notwithstanding constant and harassing interruptions, a large amount of work has been done. They have hauled reef 23,695 loads of 16 cubic feet, hauled blue, belonging to the British and Central Companies, which had been brought down with reef on this company's claims, including also that hauled for the Central Company, 613s. 3d., and hauled blue 1600 loads, equal 31,401 loads, which give an average of about 155 loads per day since Dec. 9, when reef hauling commenced, including all stoppages.

The company purchased and obtained from the vendors 5½ land claims, as purchased by them from the Compagnie Française des Mines de Diamants du Cap, under a guarantee that the claims purchased represent a minimum of 5½ claims of diamondiferous soil, or of compensation at the rate of 16,000s. per claim, the measurement on June 13 showed that the actual number of diamondiferous claims was 4567-981, so that about 5000s. will be handed over to this company. The necessity for waiting for this measurement, points to, perhaps, the most serious of all the causes which have combined to delay the profitable working of the company's property. Since June 30 very satisfactory progress has been made. They hauled reef from July 1 to Sept. 30, 9497 loads (on this company will receive payment from the Mining Board at the rate of 3s. 9d. per load); hauled blue from July 1 to Oct. 31, as per advice by letter and telegram, 8612 loads = 18,109 loads. The diamonds received since June 30, after deducting value of those on hand on that date have been sold for 4900s., and those now on hand are valued at 5530s. = 10,700s. There are further advised by telegram as having been shipped and sold for 613s. 3d., and 14,200s. of blue ground remaining on floor, estimated at 2500 loads of 16 cubic feet, worth gross, after deducting estimated cost of hauling and depositing 1600 loads to June 30, and excluding pickings (estimated at 10s. per load) which have been included in diamonds, about 3700s. = 18,000s.

The company's claims are now clear from reef. The manager states, however, that a few hundred loads will in all probability fall occasionally, but the main reef adjacent to the company's claim is sound, and, so far as can be judged, is not likely to give much trouble. Since the measurement of the claims, some ground has been lost through encroachment of reef, which was expected—and also through encroachment of reef. The basaltic rock, which forms the wall of the mine, has been expected in the claims of this and also those of an adjoining company. It was thought that the rock would prove to be perpendicular; so far such has not been the case, but it has been found to cut into the mine at an angle of about 1 in 10. It does not follow, however, that this will continue, and it has been proved by the test shafts and tunnels of an adjoining company, that the encroachment ceases at about 20 feet from the top of the basaltic rock, which then becomes perpendicular. It is further possible it may be found to recede, and the lost ground be recovered.

The CHAIRMAN said—Gentlemen, it is my duty, as one of my functions as Chairman, to which my brother shareholders have done me the honour to elect me, to submit to you our first annual report, and to move its adoption, together with the accounts. The duty is a pleasing and an easy one. It is pleasing, gentlemen, because of the gratification it affords the directors in being able to invite you to join them in looking back upon the dark and troublous days of the past year by the light of the recent success, and easy from what we trust you will consider the sufficiently exhaustive nature of the report. (Hear, hear.) The first three pages of the report are mainly occupied with a statement, as brief as circumstances would admit, of the very great difficulties and the various causes which combined to delay the profitable working of the company's property to the conclusion of the year, ending on June 30, and which landed us in a deficit of 44617. 12s. 1d. Page 4 contains a statement commencing—"The directors have pleasure in informing the shareholders that since June 30 very satisfactory progress has been made," and this is followed by a statement of the work done for the four months commencing on July 1 and ending on Oct. 31. This statement shows approximate gross earnings for that time of 18,000s., less expenses 2000s., to which must be added the value, at 40s. per load, of 1500 loads of blue placed on the floor, as per telegram received on the 21st inst. It is not necessary for you to read the report, but I think it would be well to report itself, as you will be invited, before the resolution is put, to make comments or to ask any questions which suggest themselves to you; and I may assure you, on the part of the directors, that no information which can now be given or made public, with due consideration to the interests of the company, will be withheld. (Cheers.) Whilst, with regard to other matters, I can assure you that no shareholder who pays a visit to my friend, Mr. Seel, at Copthall Buildings, Moorgate-street (who is an inexhaustible encyclopedia of all things connected with the company) is likely to go away empty-handed. (Hear, hear.) On this subject I will make one more remark. From time to time various complaints have been made by shareholders (and I am bound to admit reasonable complaints under the circumstances), of the reticence of the directors in the matter of the progress and the operations of the prospects of the company; but, gentlemen, I will ask you to believe that we have acted in this matter with discretion, inasmuch as, owing to the ups-and-downs and constantly varying nature of our prospects, we could not in justice to ourselves or to the public select and choose what information to give and what to suppress. We felt ourselves bound to give all the news we had, and we gave what was necessary, and in future we propose on the first of every month to publish a bulletin of our progress now that we have got into smooth water. (Hear, hear.) In conclusion I will think of anticipating a very pertinent enquiry, by telling you that under the circumstances of the very satisfactory progress which we have made during the last five months, and in the absence of any apparent reason why such progress should not continue for some time to come, the directors look forward to returning you a very substantial dividend at the end of the present half-year at the end of the present half year commencing on July 1. (Cheers.) I now beg to move the adoption of the report and accounts.

Mr. C. E. ATKINSON: I have much pleasure in seconding the resolution, and supporting all that the Chairman has said. It has been a difficult year, as you may imagine. (Hear, hear.) It was not until the beginning of June that we saw any life, or any chance of hope. We had, apparently, an insurmountable amount of reef on the claims, and we could not get rid of it; but, having got rid of it, we came to what we knew was underneath it—a large amount of wealth, and every load we extracted from the mine has proved all that we anticipated. Every load that we have pulled out has proved the value of over 21s., and you may depend upon it that if you see a telegram in the newspapers stating that we have pulled 2000 loads of blue or diamondiferous soil that it represents at least 40000s. Our expenses are estimated at about 20000s. a month. If we have the chance of working one-third of our time we can pull during that time to the value of 40,000s., which you see will leave a fair dividend, presuming we work only one-third of our time, and there is no reason we should not work more. We are close to the reef. We must be troubled at all times, to some extent, with reef. But you will see that the lower we go down the nearer we come to the main reef, which has proved itself to be immovable. From all the information we have of the North Block we have there a substantial reef below us, which will prevent us being troubled very much with the sliding reef. If we succeed in working it four months it will pay a good dividend. (Cheers.) Some may be curious to know why the shares are so low. Well, at the time the company was floated all companies' shares were at a very high price. I have just selected a few. The Central were then 400s., and you can buy them to-day at 150s.; the British were then 300s., and to-day 125s.; the Standard were then 250s., and to-day about 60s.; the French were then about 45s., and now 22s.; and the North Block were then about 10s., and now about 5s. This shows the depreciation in those shares generally, and, therefore, I do not think there is anything to complain about with respect to the market price of the shares, which certainly is very low; but if we have the success we anticipate we shall soon see them at par, and I hope soon at a very big premium. (Cheers.) There is one thing that I may mention to the satisfaction of all, and that is that the directors are very fair holders; and I can say—and I think I can say for all my brother directors—that as far as I know we have never sold one of the shares which we originally took. (Cheers.) I know for myself that I have not, and I think I may say the same for all, whatever we may have bought at the depressed price tells for nothing. (Hear, hear.) Originally we took a very large quantity—in fact rather more than we were talking about—but we have got them still, and they are looked up in our safes. (Cheers.) I have much pleasure in seconding the adoption of the report and accounts.

The CHAIRMAN: Gentlemen, the adoption of the report having been moved

and seconded in due form, I now invite any shareholder to put any questions, or make any comments which he may think advisable, or which may suggest themselves to him.

Mr. POWELL: I will only trouble you with one or two remarks. I see on page 4 you have a claim of 5000s. against the French company; I presume that is a good claim, and I am somewhat surprised to see it mentioned as an asset. The CHAIRMAN: It is not an asset.

Mr. C. E. ATKINSON: It cannot be an asset until we get it, and then it will go in reduction of the cost of the mine.

Mr. POWELL: How is it that we claim against the French company instead of against the vendors?—The CHAIRMAN: The vendors, after they purchased, obtained from them a guarantee that the five two-thirds land claims purchased represented a minimum of five and a quarter claims of diamondiferous soil, or of compensation at the rate of 16,000s. per claim for any claim or part of a claim found to be short of that minimum, the measurement to take place after the claims had been entirely cleared of reef, and before any work should be done on the blue ground, and to be made by a representatives of the vendors and the French company. The measurement was taken on June 13, until which date, owing to the guarantee, we could not go to work, although two-thirds of the claims had been cleared of reef. It did not then for this guarantee we should have been a paying company six months ago.

Mr. POWELL: Is there any lawsuit going on?—The CHAIRMAN: You will be surprised after what I have told you, and after being assured that there is no doubt whatever that the terms of the guarantee have been rigidly observed, that the French company have refused to pay that claim. The refusal was not in existence at the time the report was made out. Only yesterday we gave instructions to Mr. Budd, of Messrs. Johnson, Upton, Budd, and Atkey, solicitors, to take action and compel the payment of this claim. The instructions are given on account of the syndicate, who are prosecutors, of course, at the expense of the company, and for the profit of the company. You must know, gentlemen, that it was entirely a voluntary act on the part of the vendors to hand over the money. The company had no claim upon them; it was a generous and voluntary act on their part. It is unfortunate that the matter should have been forced into the attitude it has taken. It is quite unexpected, but we may rely upon our affairs being in good hands. (Hear, hear.) You must understand that the action taken is entirely taken by the vendors through their solicitors.

Mr. POWELL: At the expense of the company?—The CHAIRMAN: Certainly, we get the profit.

Mr. POWELL: I thought we were certain of getting five and a quarter claims. A SHAREHOLDER: It is in the prospectus for five and two-thirds claims?—The CHAIRMAN: Yes; land claims, and we have them.

Mr. POWELL: Is the original prospectus there?—Mr. HAMILTON: I have the original prospectus.

Mr. POWELL: It is unfortunate for the company that there is the prospect of a lawsuit in the matter. I hope it will not impede our operations further. I see you have in the prospectus five and two-thirds claims.

Mr. HOLLAND (the solicitor): "About" five and two-thirds claims. "Well-known" to contain rich diamondiferous soil." I am glad to hear you say, sir, that the telegrams and information received from the mine will be published at more frequent intervals than up to the present time. I ask if there would be any objection on the part of the board to allow the telegrams to be published as they are received, so that we may all be on an equal basis?—The CHAIRMAN: I submit that we shall all be on an equal basis if we make monthly statements. (Hear, hear.)

Mr. POWELL: Some of the telegrams will be rather stale.——The CHAIRMAN: If you are good, you will keep. (A laugh.)

Mr. C. E. ATKINSON: I think it would be unwise. If we get a telegram (as two weeks ago) of 200 loads having been pulled, and the next week 2000 pulled, it would send the shares up and down.

Mr. POWELL: If the shareholders like to act upon them they can.

Mr. LITKIE (a director): It is wisest to have monthly reports only containing four weeks' statement. (Hear, hear.)

The CHAIRMAN: We, as directors, are bound to protect the interests of the shareholders, and would be consistent with our duty to publish information which we know not to be bad, but which looks bad, and which would result in share holders selling their shares. (Hear, hear.)

Mr. POWELL: At the same time nearly all other mining companies publish their statements as soon as received. I suggest they should be sent to the Stock Exchange or to the newspapers every day when received.

The CHAIRMAN: But how often?—Mr. LOWNDES: I do not think all the railway and mining companies publish their statements when received; they do not publish every piece of news. I think if you publish every piece of information as soon as you receive it it is not safe, and if you do it we shall be able to do without a board altogether. (A laugh.)

Mr. POWELL: Well, I defer to the wishes of the shareholders. With respect to the output I was glad to hear that we shall have more frequent information, but I recommend, with all respect, my observations to the attention of the Chairman. I want to know if there are any negotiations going on for amalgamation? I have heard of it almost since the company started from various sources of information—not from that side of the table. I ask for information? I see that one or two directors have resigned; I want to know if the expenses will be proportionately reduced, as we are not a dividend-paying company? I think we should have the views of the shareholders, and we should have a *pro rata* reduction of fees.

Mr. S. S. SEAL: I think the observations of the last speaker are somewhat injudicious. It might be desirable if we were, from time to time, to indulge in speculations on the Stock Exchange; but I think, in the interests of *bonafide* shareholders and investors, it is sufficient if we get, once a month, a sensible report. (Hear, hear.) I take exception to his statement when he says that it is the practice of other mining companies to issue their mining reports as received.——Mr. POWELL: It is done.

Mr. SEAL: No, I am a shareholder in more than one, and I speak from knowledge, and I say the rule is rather to issue a monthly statement of receipts and payments, and I think if that be done the case will be sufficiently and abundantly met.

The CHAIRMAN: It will be better to give the statement of work done. I do not think we could give you a monthly statement of receipts and expenditure. (Hear, hear.)

Mr. S. S. SEAL: I leave it to you. To put the company to the expense of issuing such a report would be wholly unnecessary, and you would not get any good. With respect to the resignation of some of the directors, the board at present is by no means too strong a board. You have not too many men on it. You require a quorum to discharge your functions. You have only a board of four or five members. An observation was made that as this was not a dividend-paying company, it is desirable that one director should resign.

Mr. POWELL: No, not resign, but that the fees should be reduced *pro rata*.

Mr. S. S. SEAL: My answer to that observation is that the circumstance of the company not being a dividend-paying company arises from the fact that you could not go to work until the question of the measurement had been fully settled, so there is good reason for not receiving a dividend in respect of the half-year under consideration. But that reason will no longer exist, and we have the satisfaction of knowing that there is a dividend actually on the way. (Hear, hear.) Therefore, I think the observations are a little unkind, and out of place, and I cannot concur with them. (Hear, hear.) There is one other observation I have to make. I listened with the greatest pleasure to the remarks of Mr. Atkinson. There is nothing more satisfactory than that the directors will retain their holdings; and to be told by one director that every director held his shares in the company is a satisfactory statement. (Hear, hear.) I should like Mr. Atkinson to have gone a step further, and say that not only has he his holding now as then, but in the meantime, having these shares, the directors had not by themselves or others, purchased or sold a single share. (A laugh.) I have no doubt it is a fact, but I should be glad to have it answered.

Mr. C. E. ATKINSON: I say that we hold a great many more than we started with. (Cheers and laughter.)

Mr. CROFTON: With respect to the lawsuit, which I understand is going on, am I correct in supposing that the vendors are instructing their solicitor to enter the action at our expense?—The CHAIRMAN: That is the understanding, under the direction of the board.

Mr. CROFTON: It would be better for the vendors to lend their names, and we enter the case in our names, and instruct our own counsel. It might be that the judgement might, in the first instance, be against us, and if we had the power of controlling matters we could appeal.——The CHAIRMAN: We have the power.

The SHAREHOLDER: You are in the same position as if the vendors had lent their names.

The CHAIRMAN: Precisely. Gentlemen, I will now ask if you will pass the resolution I have moved, that the report and accounts be received and adopted.

Mr. POWELL: There will be no objection to passing the accounts if you will answer the observations which I have made.

The CHAIRMAN: You have asked a question with respect to amalgamation; I can only tell you that I know nothing about it. (Hear, hear.) With respect to directors' fees, I think it is not more than one claim that Rear-Admiral Sir William Hewitt sent in his resignation. He has gone on honourable service abroad, and we should have been proud to welcome him to the board on his return, but he has resigned. Mr. Adolphus Cohen, whose presence we regret from the board, has only resigned about three weeks. There are sufficient reasons, gentlemen, and I shall be glad to inform any shareholder privately what they are, and why we should not, just at the present, fill up the vacancies. We hope to do so in a month or two months. In the meantime, with respect to the fees, they are not excessive. (Hear, hear.) We cannot say we are not a dividend-paying company any longer; but we can say that, in the absence of two directors from the board, there is a double duty upon the remainder. (Hear, hear.) Some of us are business men, I, unfortunately, am not; but it has very often been at great inconvenience that I have attended to make a quorum, simply because the other directors could not do so; and as far as I myself can see, my duty has been doubled, at least in consequence of the paucity of numbers on the board. I do not think it will be a month before we fill up these vacancies.

The resolution for the adoption of the report and accounts was then put and carried.

The CHAIRMAN (referring to some specimens on the table) said—We have brought down some specimens sent home from the mine. They are diamonds in the matrix, and the price of each diamond is put upon it. With respect to the election of a director, Mr. John Newberry voluntarily retires from the board, and offers himself for re-election. But I am sure he will pardon me if I find myself unable to pass even in silence the serious obligations we are under to him for his invaluable services to the company, not only in giving us the benefit of his practical experience and sound judgment, but in proving a tower of strength to us in days of trouble and anxiety. (Hear, hear.) To him, gentlemen, we all of us have found the best of all friends—"A friend in need." I believe it is within my province to propose his re-election, which I do with much pleasure, and perhaps some shareholder will second the resolution.——Mr. POWELL: I will second it.——The resolution was carried.

The CHAIRMAN: We are fortunate, gentlemen, in the possession of able and well known auditors, and it is necessary, as you will see, to move their re-appointment. I move that Messrs. Dehlfie, Dever, Griffiths, & Co. be re-appointed auditors for the ensuing year.——Mr. TAYLOR: I have great pleasure in seconding that they be re-elected. I do not think we can place ourselves in better hands. (Hear, hear.)——The motion was carried.

The CHAIRMAN: Gentlemen, I have one more pleasing duty to perform, and that is to ask you in consideration of, and reviewing the great difficulties and troubles which we have been piloted through during the year, and knowing it is a graceful custom for the passengers of a ship on arriving at the end of a voyage, when their journey has been beset with trials and difficulties, to move a vote of thanks to the captain. (Cheers.)

Mr. LITKIE: I have very great pleasure in seconding the vote. No one can form any conception of the difficulties he had to go through. I who have been on the field know the very trying climate; and in our little company there have been difficulties which would have created almost despair. He has loyally done his duty, and I think he may now look forward to remunerative and easy duty. (Cheers.) I have much pleasure in seconding the vote of thanks.

Mr. S. S. SEAL: This is a resolution which I venture to say, in our interests, should be supported, not in a passive way, by the shareholders. (Hear, hear.) I do not know Mr. William Newberry, but his brother I do know; and I say that if Mr. William Newberry out there discharges his duty as efficiently as the directors here, those duties are well attended to. (Cheers.) And I know that it is always a satisfaction to a manager to know that his services are appreciated by a body of shareholders at something like their value; and I should be glad if the Chairman and the other directors would take the opportunity of conveying to the manager out there the high service they entertain of the duties which he has discharged. I feel that our interests in the future will be very sedulously watched and zealously guarded if it be known that what he does on our behalf is appreciated here. Therefore I venture, as one of the shareholders, to support the resolution. (Hear, hear.)——The resolution was carried.

Mr. POWELL: As a sequel to the last resolution, Mr. Chairman, I am happy to propose a similar vote of thanks to the gentlemen in London, who have carried on their work, I have no doubt, very efficiently. From what I have heard from various members on the other side of the table, I feel satisfied that nothing will be wanting on their part to bring the ship another successful voyage. And, in proposing this vote of thanks, I wish it to be distinctly understood that it was in no capricious spirit I made the few remarks I did—(hear, hear)—but simply to get a little information for the body of the shareholders, and with the view of seeing whether we could economise, and after the explanation about the early appointment of the new directors I have nothing to complain of; and I am sure the body of the shareholders in this room will be very pleased to join with me in passing a vote of thanks to you, sir, and your colleagues. (Hear, hear.) Perhaps some gentlemen will second that.——Mr. TAYLOR: I have great pleasure in seconding that.——The motion was carried.

The CHAIRMAN: I beg to return you our sincere thanks for the manner in which you have received the vote of thanks proposed by Mr. Powell. We have, as a gallant soldier said on his return from Egypt, when there was a great deal of Miss Maudie about him—"Oh, for God's sake let me alone, I have only done my duty." (A laugh.)—and I will say the same for your directors.——The meeting then broke up.

DEVALA PROVIDENT GOLD MINING COMPANY.

An extraordinary meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Monday.

Mr. FREDERIC PROPERT in the chair.

Mr. WILLIAM EDWARDS (the secretary) read the notice convening the meeting, which stated that the meeting was called for the purpose of confirming the resolutions passed at the meeting of Oct. 30, having regard to the winding-up of the company. He also (at the request of Mr. HENDERSON) read the minutes of the meeting of Oct. 30.

The CHAIRMAN said: We have met to-day to confirm the resolution passed at the general meeting held on Oct. 30. Since those resolutions were passed nothing has occurred. I believe, to alter the wishes of the shareholders. This meeting is simply summoned in accordance with the Act of Parliament, to confirm these resolutions. I do not think it necessary to make further comment in connection with the resolutions, and I have pleasure in moving that the resolution passed on Oct. 30—"That the company be wound up voluntarily"—be confirmed.——Mr. FRANCIS COBB seconded the motion, which was carried unanimously.

The CHAIRMAN: I now beg to move, gentlemen, "That the appointment of the following gentlemen as liquidators—Mr. Jacob Levi Montifiore, Mr. Francis Cobb, Mr. John Matthew Klenck, Mr. Frederic Probert, and Mr. Hugh Watt be, and the same is hereby confirmed, and that the votes of the majority bind the minority, the Chairman to have a casting vote. The remuneration to be 300l., paid at the close of the liquidation, to be divided as they shall determine."——Mr. COBB seconded the motion.

Mr. HENDERSON objected to the resolution *ab initio*, for the reason that it was proposed at the last meeting by a gentleman who had not paid his calls, and who was, therefore, not entitled to exercise the privileges of a shareholder. He thought the resolution was not a desirable one in any sense of the word. He asked whether the five gentlemen proposed would act, if appointed.

The CHAIRMAN: The whole board have signified their intention to act as liquidators in accordance with that resolution.

Mr. HENDERSON repeated his objection, and said it would be better in any case that the liquidation should be carried out by some person having experience in such matters. If the 300l. were to include the whole of the expense of the liquidation he would waive his objection; but that was only for the remuneration of the liquidators, and there might be a great deal more expense incurred. He also objected to the Chairman having a casting vote, and thought that all the liquidators, if there were more than one appointed, should have equal powers.

Mr. KEELEY (the solicitor) admitted that the mover of the resolution at the previous meeting had not paid his calls, but believed the courts would hold that the vote having been carried by a large majority should be binding. But this was not a special resolution requiring confirmation as was that involving the question of winding up the company, and the meeting was quite competent to pass this resolution. If the gentlemen named were not appointed another meeting would have to be called to decide the matter.

Mr. KEELEY believed that any of the leading professional liquidators would wind the company up for 300l., including all the expenses except those which might be incurred in bringing or defending actions at law.

The CHAIRMAN said the amount of remuneration was quite immaterial; but the gentleman named represented a large majority of the shares, and they were fully aware of all the details, which an outside liquidator would have to make himself acquainted with. Their desire was that no further call should be made, and that if possible something should be returned to the shareholders, while the company was being wound up. It was not to be expected that any claim might be made by persons originally connected with the company. He was quite willing to strike out the clause in the resolution having reference to a casting vote.

Mr. HENDERSON moved that the selection of a liquidator should be left to Mr. Watt and Mr. Kingsmill, and that the expense of the liquidation should not exceed 300l., excepting the taxed costs of any legal proceedings which might be taken by or against the liquidator.

The CHAIRMAN pointed out that the only motion which could be put was the one on which notice had been given. The motion made by the Chairman was the motion submitted.

Another meeting will, therefore, have to be called to appoint a liquidator or liquidators.

CENTRAL JAGERSFONTEIN DIAMOND MINING COMPANY.

The first annual general meeting of shareholders was held at the office, East India Avenue, on Monday.

Mr. J. MARMONT in the chair.

The SECRETARY read the notice convening the meeting, and the directors report was submitted.

The CHAIRMAN said that the mines have now been working a little over 12 months, and diamonds to the value of about 1400l. have been discovered. In consequence of the difficulties they had had to contend with in the clearing off the ground they had not yet been able to reach the proper diamond-bearing soil which lies underneath the floating reef referred to in the report—a depth of some 60 or 70 feet. It is unfortunate that this impediment to the removal of the crust or covering of the ground was not discovered sooner, and before the capital of the company was fixed, otherwise certainly a working capital sufficient to meet the circumstances would have been secured. The difficulty was not, however, foreseen, either by the vendors or apparently by anybody, and this is the reason why, coming upon them in such a manner, the creation of the debenture issue of 20,000l. has been deemed necessary. Towards this amount the vendors engaged to subscribe 10,000l., which, as informed by the manager on the spot, is sufficient to enable them to get to the proper depth. As to the future prospects of the mine, he had great confidence in the company's success. Mr. Kitto, whom they had appointed as their consulting engineer, has had great experience of the country, he has been out there, and knows the diamond field well. He has been employed by the local government, and he would give any further information required, and perhaps his opinion as to the value of the property might induce them to feel some little consolation for the disappointed hopes. He concluded in formally moving the adoption of the report.——Mr. J. SHAW KENKID seconded the resolution.

Mr. KITTO, in reply to questions, stated that it does not necessarily follow because the property is in the centre of the mine that they got more diamonds. It has been proved in the Kimberley Mine that different parts of the mine, from the centre at different intervals, are richer than other parts; sometimes it is the north that is the richest and sometimes the south, and sometimes the east or west, and at other times in the centre. He has no hesitation in saying that the diamond formations of the Kimberley and other mines are more clearly defined than an ordinary metalliferous lode. With reference to the plan, you will see, he continued, at the top it is marked "reef" on either side, and then "igneous rock;" that is the lower rock of the country, in fact, the base rock. The other, which is marked "shale" and "basaltic rocks" and "shale" are really the containing rocks of the mine. The part of the plan marked "diamond formation" was at some time evidently an empty crater, which, through some volcanic action, became filled with the diamond matter. In order that they should not confound the floating reef, which is really intrusive rock, but which is technically called a "floating reef," I have drawn a distinction. At the time this took place very likely the over-lying formation was higher than at present, or when the diamond mine was first discovered, and consequently during the time of disintegration, rocks from a higher formation fell in, and filled a portion of the cavity, and these rocks became embedded in the semi-liquid diamond soil. Between those masses of rock the diamond soil forced itself between the interstices, or rather the rocks included themselves in the diamond soil. Persons might easily, in starting in one section, think they were in pure diamond soil, but they would be very easily deceived unless they had previously sunk a trial shaft. The difference between the Jagersfontein and the Kimberley is this, that at the Kimberley Mine the disintegration has been more rapid, or, probably the diamond soil may have been forced nearer the surface. The portion marked "intrusive rock" when the Kimberley was discovered had been washed away, so that when they started there was nothing but the pure diamond soil; but in our company we shall have to do a work for the first 60 or 70 ft. that Nature did for them in Kimberley.

Mr. SCHOFIELD: You did not go over the Jagersfontein Mine?——Mr. KITTO: Yes.——Mr. SCHOFIELD: But not this one in particular?——Mr. KITTO: No; I only know that it is in the centre of the property.——A SHAREHOLDER: Is there any water there?——Mr. KITTO: The Jagersfontein is one of the wettest of all the group.——The SHAREHOLDER: How is it got out?——Mr. KITTO: I got it out by buckets, and some by hand.——Mr. SCHOFIELD: Not by machinery?

—Mr. KITTO: There was no machinery of any consequence when I was there. I anticipate that the principal portion of the water will be found at a depth of some 60 or 70 ft., at a point where the yellow ground changes to blue. The only difference in the chemical qualities of the ground is, that the blue is found at a point beneath the chemical influence of the atmosphere, and it has been found in all other mines that is the point where they get most of the water.

Mr. SCHOFIELD considered that if the directors had exercised due caution and made a proper examination of the property, they would have had very little difficulty in finding out that the sum set aside was totally inadequate, and that the price paid for the mine was excessive. He thought there was little doubt about that, but at the same time he believed that the property was a very valuable one, and that if sufficient capital were found it would pay handsomely. Now, under those circumstances it was necessary for them to consider what course they should pursue. The Chairman had stated that the vendors had come down handsomely with 10,000l.; but that was not large enough. He thought they should have put down as much as is necessary to develop the property. He thought they ought to come forward in a liberal manner, and to have said, gentlemen, we will put down 50,000l. to develop this, and then if they had done so, he thought they could have said they had behaved handsomely.

Mr. WRIGHT: Can you tell me whether the 10,000l. which has been subscribed already is, in your judgment, likely to be enough capital, or is a larger amount of capital requisite to surmount those difficulties?—Mr. KITTO: The 10,000l. has been given by the manager. I have only been connected with the company a few days. I think we shall have to take the statement of the manager upon this matter.

A SHAREHOLDER, in the course of a long discussion as to the purchase price of the concern, said that to pay 104,000l. and to leave only 11,000l. in hand for working expenses, was not, to say the least of it, shrewd. Mining speculations upon the whole were venturesome, but that was a very small point, and he would certainly like to see the contract, and to see the first prospectus. He had endeavoured to obtain that during the week but there had always been some excuse made. He asked for it that morning, but it was not forthcoming, and he would like to see it in order to see what the hopes were which were held out in that prospectus.

Mr. SCHOFIELD: I find on looking at the accounts that the total amount expended on working the mine is 8157l. 1s. 5d., and the directors' fees for superintending or directing the expenditure of that money is 900l., or over 10 per cent. This is out of all proportion. I think the gentlemen ought not to take such a sum as that. The directors take 10 per cent. of the actual expenditure, and if that was to go on it would be enormous.

The CHAIRMAN: I think when I mention one fact with regard to the fees of the directors there will be not such a lively desire on the part of some gentlemen to join the board, because the understanding we have come to with the vendors, who have contributed this 10,000l., is that we are to have the future relinquish our fees, so far as the de/benture amounts are concerned.

The report was adopted with two dissentients, and the proceedings terminated with the customary thanks.

THE WEST KITTY MINE COMPANY.

The four-monthly meeting of shareholders was held at the offices, Walbrook, on Tuesday.

Mr. JOHN B. REYNOLDS in the chair.

Mr. FREDK. J. HARVEY (the secretary) read the notice calling the meeting, and the accounts, showing a credit balance of 2840l. 7s. 10d., were taken as read. He also read the agent's report as follows:—

Nov. 27.—Since the meeting held on the mine on July 26 last we have started to drive a cross-cut north of the engine-shaft at the 84 fathom level. This will intersect the lode about 30 fathoms deeper on the course of the lode than it has yet been seen. The 80 fathom level driving east, our deepest point, the lode is about 3 ft. wide, producing a little tin. I am looking forward to an improvement here, as we shall soon be under the run of tin ground that we have at the 72 fathom level. In the 72 fathom level east the lode is worth in the present end about 12l. per fathom. This end has been suspended a short time for want of ventilation. We are now putting up a rise close to the end, and also sinking below the 60 fathom level to communicate with the rise; lode worth 25l. per fathom for copper and tin at both points. I expect to hole this in a few days, when we shall at once resume driving the 72 and 60 fathom levels east. In the 60 fathom level east of rise the lode in the present end is worth 25l. per fathom. The 60 fathom level, driving east of cross-cut, we have driven about 9 fathoms; lode worth from 10l. to 12l. per fathom. The 60 fathom level west of cross-cut we have driven about 5 fathoms; lode worth about 10l. per fathom. In the steps in the bottom of the 72 fathom level the lode is worth 20l. per fathom. In the steps in the back of the 72 fathom level the lode is worth 50l. per fm. In the steps in the back of the 60 fathom level the lode is worth 40l. per fm. Our stamps are working well, and now in good working order. I have more work to do at our dressing floors, which is being carried on with all practicable speed. On the whole, I consider the prospects of the mine never looked better than at the present time. Gentlemen, the returns for the last four months are now before you, and I see no reason why these returns should not be more than kept up for years.—W. VIVIAN.

The CHAIRMAN said: Gentlemen, to-day our persevering association reaches its first climax of success, and we shall surely be pardoned if we congratulate one another very heartily upon the fact of our entering the Dividend List of British mines at this meeting. (Cheers.) The fact itself would not be greatly significant were it not for the more important circumstance that, even with our present discoveries, we see our way to a profitable future, extending over a long period. The accounts on the table show, as you perceive, a credit balance of 2840l. 7s. 10d., which balance would really permit a division of nearly 10s. per share; but, notwithstanding that, we have 10 tons of tin on the mine not included in the present accounts. I think you will agree with me that it will be more prudent, if not absolutely necessary, to carry forward a credit-balance of 4500l.; and if we content ourselves with a dividend of 8s. per share we shall be able to effect this object. (Cheers.) Now, gentlemen, the committee would not suggest this dividend if they did not see their way to increase it in the future. I should regret being too sanguine, but I could not justify myself if I were to conceal from you my assured belief that we shall reap larger returns in the future than we have realised since the last meeting. This will, perhaps, appear more clear to you when I state that our stamps were never so farward as they now are, and that the additional work done to them since July has been somewhat large. Undoubtedly, had it not been for this absolutely necessary outlay, our credit-balance would even be greater than you now find it.

You will not fail to observe that we are not working the mine with a view to getting, by imprudent working, immediate profit, but that we are laying the mine out fairly for it is one who now believes will prove to be a permanent dividend mine of greater value than we have been led to expect. (Hear, hear.) The history of the past 12 months must not be taken as indicative of the exact history and progress of the future. Rich as the tin ground opened up undoubtedly is, the points in operation are but few, and will be increased in the ordinary way of development. Anticipate the requirement for further information as to the future of West Kitty by referring you to the present value and general character of the various levels, and if, in conjunction with such appearance, you reflect on the means of tin ground which exists close up to West Kitty boundary, on the Wheal Friendly side, you will be able to recognise the fact which I have been strongly asserted by those well qualified to judge that the present market value of our mine by no means represents its intrinsic worth. (Cheers.) I have hitherto, gentlemen, only directed your thoughts to the eastern part of the mine—i.e., that portion between the engine-shaft and the Wheal Friendly boundary. From what I have gathered it seems to me that most people overlook the fact that West Kitty has a considerable run of ground—about 300 fms. west of the engine-shaft, and the indications in the western ground justify the opinion very strongly held by us, that the mine is a very valuable property. (Cheers.) You will observe, gentlemen, that I am confining my observations strictly to fact. I am, as you see, studiously abstaining from the use of exaggerated language, and if you will refer to the statements made within the last three years from this chair, you must rise from the consideration of them with the conviction that I have made myself thoroughly acquainted with the practical matters under review; therefore it is that with that acquaintance I can conscientiously declare that I never had better or surer ground than I have to-day for the favourable views I express concerning the future of this encouraging property. I cannot conclude this address without reminding all concerned of the immense importance our present position is to the St. Agnes district generally. That the rich deposit of mineral wealth which we possess is merely confined to our limits is an idea so questionable as not to justify debate, and those who are fortunate enough to hold shares in the mines in immediate vicinity to West Kitty may take courage from the proceedings of this day. You gentlemen, when money was required to carry on operations, did not hesitate one moment to supply it; but notwithstanding adverse and even unfair criticism, you have adhered up to the dictates of common sense, and now you are rewarded with the third richest mine in Cornwall, and one which will be highly profitable to you and to your successors. I hope the shareholders in the other mines I have adverted to will follow your example, and as a consequence meet with similar results. (Loud cheers.) Gentlemen, I have much pleasure in moving the adoption of the report and accounts.

Mr. COUZENS: Gentlemen, I have much pleasure in rising to second the resolution. I think it speaks for itself. It does not need any words of mine to enforce it. We all must feel it is a most excellent balance-sheet. I came here expecting a good one, but it has even exceeded my anticipations, and with respect to the manager's report that is equally good. It is good at present, but it speaks of greater good near at hand for us in the future. (Cheers.) I expected something specially good myself from the report, as read to you, and from what I have heard from Captain Vivian at our committee meeting, from the 72 fm. level and the 60 fm. level, and I may say also from the 60 east and west of the cross-cut. These are very important points, and I think we may expect something there very much better than any we have now. Indeed, there are indications that we are getting into rich deposits of ore—as rich as we had them at the 72 and 60. We have a thoroughly good mine, a thoroughly good manager, and I think there is reason to be satisfied. (Cheers.) I do not profess to be a prophet, nor the son of a prophet; but I have prophesied a little with respect to West Kitty, and as time has rolled on my predictions have been verified, and they are more fully

verified to-day than before. Good as our meeting is to-day with respect to returns, balance-sheet, and managers' report, I believe better meetings are to come, and I expect to receive still larger and more substantial dividends. (Cheers.) The beauty of our mine is that we are not working, and never have worked for market purposes. (Hear, hear.) We are working the mine fairly, and if you knew the reserves which are there you would be amazed. I am exceedingly pleased with the Chairman's speech, particularly where he speaks of our expecting better dividends, and that for many years to come. I have been into Cornwall lately, and a man inspected the mine, and after he came up said—'You have enough ground opened there to give dividends for the next five years to come if you never open another inch.' (Cheers.) I am thankful I do not hold many shares in Cornish mines out of West Kitty, New Kitty, and Trevaunance seeing the state of things in Cornwall at the present. Look at the tremendous fall in the price of the shares, and I do not know but what that fall is warranted, seeing how many mines which formerly paid good dividends are utterly gone out of the Dividend List with heavy debt balances at their last meeting. It is lamentable, and I pity those who have shares in them very much, and I think that West Kitty has entered the Dividend List at a most favourable time indeed. We do it in a perfectly fair way. We are fully justified in giving an 8s. dividend. I am certain better dividends are to come. If we work on as we have done in the past, we have the best prospects before us. (Cheers.) I have great pleasure in seconding the resolution that the statement of accounts and managers' report, now presented, be and are hereby received and adopted.

The CHAIRMAN: Now, gentlemen, the whole business of the meeting is fairly before you, and if you please we will take the conversation at once.

Mr. CROFTS asked whether the lode mentioned by Mr. Reynolds as being west of engine-shaft was in the West Kitty property?—Capt. VIVIAN: Yes, of course.

Mr. CROFTS: How far is the West Kitty lode from the northern boundary of the mine?—Capt. VIVIAN said he could hardly answer that question offhand.

Mr. CROFTS: When do you suppose it will pass out of our boundary?—Capt. VIVIAN said he could not answer that question now, as he had never gone into the matter. It was too remote to require attention.

Mr. CROFTS said he asked the question in no inimical spirit, but with a view of seeing what they had before them in the future. He had even heard it mentioned on the market that the West Kitty lode would soon pass out of sight, and, therefore, he asked the question of Captain Vivian. He was perfectly satisfied with the replies.

Capt. VIVIAN said they were driving a cross-cut at the bottom of the engine-shaft north, and they would cut the lode from between 30 to 40 fms. deeper than he had yet seen it. He thought that alone would lay open a piece of ground which would take something like 10 years to work, and 10 years was quite long enough to look forward to in mining. That cross-cut would open 30 or 40 fms. on the line of the lode, which would take 10 years to take away. After they had intersected the lode at that point they would be better able to tell what there was still deeper. He was very glad to have these questions put to him, and he would answer them to the best of his ability. (Hear, hear.)

A SHAREHOLDER asked what had been the average price of tin?—Captain VIVIAN said it had been 62l. 17s. per ton, against 60l. per ton at the time they last met. This was the highest price for tin in Cornwall, with the exception of a ton or two of stream tin which was occasionally put upon the market.

A SHAREHOLDER: How much profit per ton will that leave?—Capt. VIVIAN: About 10 per cent.

Mr. PAYNE (Exeter) asked how the reserves stood in the mine?—Captain VIVIAN: The reserves are as great to-day as they have ever been. We have not diminished our reserves within the last four months. (Cheers.)—Mr. PAYNE: Can you tell me what the West Kitty Mine is going to be? (Laughter.)—Capt. VIVIAN: I am not a prophet, but I have been connected with these mines for a very long time—I will not say how long, but a good many years. I have never had but one opinion of the mine, and that one opinion is that we are going to have a good mine. We passed through some troublous times, and I went on with my old story. I had but one story, and that I kept on with. (Hear, hear.)

My old friends, Mr. Bowman and Mr. Budd, and several others have stuck to it, until we have brought it to what you see to-day. (Cheers.) With respect to this western ground, Capt. Joseph Vivian, a cousin of mine, and myself were working the mine together, and we had some very good points in the western ground, 250 fms. west of the engine-shaft. We had tin there worth 30l. per fathom, and we made some excellent returns. This lode passes under that, and by-and-bye, as we continue to open up our levels west, we shall still find a rich course of tin.

We have every reason to believe we shall, seeing that the rich lode which we worked upon was richer in the western part of the mine than in the eastern part. Therefore we look forward to the time when the West Kitty lode will be also rich in the western part of the mine. This is not a bubble mine; there is a mine in West Kitty which will be a good mine after I am dead and gone, and I have no doubt that some present will see a dividend mine in West Kitty for a very long time. (Cheers.)

Mr. MICHELL said there was one ore which had been overlooked, which was known to a good many shareholders but not to all—that in West Kitty there were two flat lodes, one under the other. They had sunk the engine-shaft through both, although the bottom one was the one they were working. In the shallow place the lode had not been picked; this was all in the future, and there was an unknown quantity there. (Hear, hear.)

A SHAREHOLDER: What is the distance between the two lodes?—Captain VIVIAN said the distance was about 15 fathoms. The Wheal Kitty worked on the upper, or Loyal's lode, before they got to Pryor's, or lower lode, and it had given profits. By-and-bye he should turn his attention to this Loyal's lode in West Kitty, and no doubt he should find it quite as good, or perhaps a little better. (Cheers.)

Mr. COUZENS said he was glad Mr. Michell had called attention to this fact. When he heard of it two or three meetings ago he considered that the mine was enhanced in value many thousands of pounds. As Mr. Michell put it at the time, they had really a new mine there.

Mr. MICHELL said he should not be exaggerating if he said the shareholders would not be justified in taking 30,000l. for their interest in the top lode.

A SHAREHOLDER said he was glad Mr. Crofts had asked the questions he had done, because the answers which had been elicited were, he thought calculated to satisfy the shareholders as to the permanent character of the mine. (Hear, hear.) Mr. CROFTS: It is the only thing I have ever heard said against West Kitty, and the satisfactory information elicited justifies the questions.

The resolution for the adoption of the report and accounts were then put and carried unanimously.

Mr. Alderman BOWMAN (Southampton) said he had now to perform one of the most pleasing duties that had ever fallen to his lot, and that was to propose a dividend of 8s. per share on the 6000 shares of the company, free of income tax. (Cheers.) He was sure this must be satisfactory to every gentleman present. He was gratified to find that the shareholders were so well satisfied with the mine had been brought to such a successful issue. (Cheers.)

Mr. BUDD seconded the motion. He also congratulated the shareholders, and said there was every reason to believe that, in future, they would realise even better dividends than the one declared to-day.—The resolution was carried unanimously.

Mr. LENOX moved that a cordial vote of thanks be presented to the committee for their past services, and that they be re-elected. The shareholders ought to be exceedingly grateful to the committee who had piloted the ship through all the difficulties they met with, and they congratulated Mr. Bowman, Mr. Reynolds, and the other friends who had stuck to the ship through all weather. The shareholders had every reason to be satisfied with the way in which the property had been managed. The committee had had to discharge a great deal of dry detail work, but he hoped they would now have a good deal of very pleasant work in signing cheques for dividends. The shareholders had the fullest confidence in the men who managed their affairs, and they could not do better than thank them for their past services and re-elect them. (Cheers.)

Mr. PAYNE (Exeter) in seconding the resolution, said the shareholders were all delighted with the position they were in, and they would not now be in such a satisfactory state if they had not, when funds were required, boldly made calls and provided them. The happy result they had now arrived at was largely due to the prompt manner in which the shareholders had responded to the calls which had been made. People should not go into mines unless they were prepared to stick to them, and to pay calls when calls were necessary, always provided, of course, that their affairs were—as in this case—honestly and economically administered. (Hear, hear.)—The motion was carried with acclamation.

Mr. DUTTON (Worcester) moved that the committee should be empowered to appoint a storekeeper with the least possible delay, and to fix his remuneration. This appointment had become necessary owing to the increased amount of stores necessary to be kept at the mine, and to the fact that too much of Capt. Vivian's time would be taken up in looking after the stores as he had done before.—Mr. MICHELL, in seconding the motion, said it was all very well for Capt. Vivian to look after the stores when the mine was in a state of poverty; but at the present time it would be very ill-advised to leave this duty to him, as he was a busy man, and he could be much more profitably employed. (Hear, hear.) The motion was carried unanimously.

Mr. COUZENS moved a cordial vote of thanks to the Chairman, who had a special gift for preparing mining addresses and presiding over mine meetings. He had given them an admirable address to-day, and he had shown them what a valuable property they had in West Kitty. (Cheers.)—Mr. LENOX seconded the motion, which was carried very cordially.

The CHAIRMAN responded, and the meeting then closed.

TREVAUNANCE UNITED MINES COMPANY.

The ordinary general meeting of shareholders was held at the offices, Walbrook, on Wednesday.

Mr. JOHN B. REYNOLDS in the chair.

Mr. FREDK. J. HARVEY (the secretary) read the notice calling the meeting. He also read the statement of accounts, showing a balance of 217l. 3s. 8d. due to the bankers.

The CHAIRMAN said: In the rush of business, gentlemen, during the last few days I have not had a moment to put a few thoughts together to convey to you, but the subject is so very simple, and at the same time interesting and straightforward, that I shall have no difficulty in attracting your attention to the particular features of this property. (Hear, hear.) I may say, with reference to the balance-sheet, that you will observe there is an amount of 217l. odd due to the bankers, and that is an accidental circumstance, arising from the fact that our meeting is a few days behind hand, and that our monthly pay was on Saturday last; so that whilst you have that debit balance you have the satisfaction of knowing that everything which was due has been paid up to Saturday last. Of course, there are no liabilities due and unpaid. You will also see that an amount of 120l. has been credited for tin; that amount would have been considerably larger had it not been for the scarcity of water during the last four months, for we have only water-stamps at present. Now, for the next four months the accounts will bear a very different aspect, and will be a considerably larger amount of tin to the good. (Cheers.) The prospects as far as the present tin ground are concerned, are decidedly favourable. Capt. Vivian will tell you that within a very small area (something about 3½ acres) above the adit level something like 200,000l.

profits were made by the lode, and no doubt most of you were aware of the fact before; but I draw your attention to it now to indicate to you that perhaps there is a future before the company which may equal even the future of West Kitty. I have good reasons for knowing that such a hope is not unreasonable, and you will agree with me when I remind you again of the circumstance that within 3½ acres a return of profit was made of 23,000l. All the ground above the adit level, you will remember, in Trevaunance has by no means been worked away. Since the last meeting you have made a discovery of, I should think, some considerable quantity of tin ground, from which you will see get your returns, and from which in future you will get increased returns. (Cheers.) The extent of that ground Capt. Vivian will probably give you some idea of that will be satisfactory to you. Now I want to direct your attention to a report of Capt. Vivian, which was dated March 8, 1882, and he says in that report:—'I now propose to drive a cross-cut at the adit level, which is 55 fms. from surface, to intersect the Wheal Friendly and Polberro lodes, which have produced such large quantities of tin in the deeper levels, and in Wheal Covea above the deep adit level. These lodes underlie in the Trevaunance, but have not been worked upon below the adit level.' Now, gentlemen, that cross-cut was commenced on or about March 8, 1882, and it has been continued ever since. Capt. Vivian, with his usual reticence, has not said much about our progress at this point; but he will be able to tell you this morning that they are now very near this Wheal Friendly lode, or the Pink lode, as it is called, and that they are so near to it as to have a good course or body of muddle, and that the ground presents a character to leave nothing to be desired. (Hear, hear.) Now, in addition to that, it appears from a note which has been sent up this morning to receive, that from this end is issuing a large quantity of water, so it is quite within the range of probability that we are very near, at this moment, to a discovery. (Hear, hear.) Nothing has been done in the Trevaunance proper below the adit level, and we have a large amount of ground more to work upon—virgin ground—above the adit level. You will see at once that we can take away that ground. We have no other machinery on the ground except three water-wheels, and that was the only machinery Mr. Enys had on the mine when he realised the enormous profit I have referred to. Gentlemen, if we are fortunate enough to meet with a considerable quantity of tin ground, as we expect, above the adit level, it is very reasonable for us to suppose that we shall be fortunate enough to be able to divide profits from above the adit level; at any rate sufficient to put up any machinery which we may require. I do not care very much about a large show at surface; it is no recommendation to me, as far as the mine is concerned, to know that there are four or five big pumping-engines, which must be kept constantly at work, involving a cost for coals and other purposes, and which runs away with a larger amount of money. Gentlemen, referring to the plan, you will see that Trevaunance, for situation, can hardly be excelled. On the one side there is Polberro—a mine which is well-known on the other side there is West Kitty. If you can point out to me any mine in Cornwall situated better than that, I shall be very glad of the information. (Hear, hear.) I have said nothing about West Kitty lode dropping into Trevaunance, because it is impossible for us to say at what depth that drop will take place. If I were to try to give you an idea upon that point, or Capt. Vivian either, we should be misleading you; but this, I think, I can say, that if in the course of years too long for us to look forward to, so far as our circumstances are concerned if in the course of years we should find a lode rich in that direction, there is no doubt every facility would be given by West Kitty to enable us to reap the advantage, without sinking a shaft from surface to work it. (Hear, hear.) The two companies are on very friendly terms, and nothing can be more satisfactory than the highly prosperous state of our wealthy neighbour. (Cheers.) Of Polberro I need not speak—the history of that mine is a household word. Therefore, I say we are between these two mines, and we cannot be in a better position. All that would not be of much encouragement had it not been for the fact that in Trevaunance we find the stratification everything which we could wish for, which is a vital point. However, well a mine may be situated, if it is not an encouraging stratification, the consolation about situation is not of much avail. With respect to the future, and the finances, I do not know that we need make a call to-day at all; if we followed the example of other mines we certainly should not make a call now, but inasmuch as we do not follow the example of other mines, and take care to keep a clear book, and entirely out of debt, and as we are bound to do our business upon the no credit system, it will be desirable, if not necessary, to make a call of 1s. per share, which will put us in a first-rate financial position, and with the returns of tin which we shall have in the next four months, this will place us in a position which will be very satisfactory to you in four months' time. (Cheers.) I congratulate you as heartily as I ever congratulated shareholders in my life on being connected with this mine. I believe there is a bright future before it, and I believe that Trevaunance will before very long take such a position as will be a further encouragement to outsiders to come in and work other properties in this now very celebrated district. (Cheers.) Gentlemen, I now beg to move the adoption of the accounts.—Mr. MICHELL seconded the motion.

Mr. J. HAYES then read the report of the committee. Since the meeting, held on the mine (July 26) we have continued driving the cross-cut south at the 55 fms. level, and have been very hard, which will account for our slow progress at this point. I am glad to state, however, that the ground is now more favourable for driving, and I hope to intersect the Wheal Friendly or Pink lode in the next four months. This lode has been worked on very extensively in this mine at the shallow levels, and also in the adjoining mines, where large and profitable returns have been made. Our returns of tin are on the increase, and will very much assist us in paying cost during the next four months. With only a slight improvement this mine will pay costs; or I may say, something that is far more desirable—profits.—W. VIVIAN.

Mr. BUDD said that if the West Kitty lode ran into Trevaunance, it might be years before they got it.

Capt. VIVIAN: We are not going for the West Kitty lode in Trevaunance; it would be a work of many years. It would come into this mine at a very deep level, but we do not, as I have said, go for that lode. It is the Friendly or Pink lode which we go for. That lode, as I have stated in my report, I hope to get within the next four months. I was underground on Saturday, and there were indications then, and we find further indications this morning that we are very near the lode. I have a letter this morning saying that the end, which was dry when I was there on Saturday, is now letting out so much water, that the dynamite can scarcely be placed in the holes. I shall be disappointed if we do not meet it there, and no doubt, we shall meet with the lode there which will last us for very many years to come. (Cheers.) Many years ago the ground was divided into two or three sets, worked by different small companies, which could not agree amongst themselves, and the works were stopped. An old man who had worked in it told me about it, and I had it cleared out, and we have got tin from it. I cannot say the exact extent of the ground, but there is a large piece of ground which will assist us in paying costs.—Capt. VIVIAN: 55 fms. from the surface.

Mr. JAMES asked if they were troubled with water?—Capt. VIVIAN said the adit drained the mine. Their object now was to get this lode, and see what it was like, and see whether it would warrant the putting up of machinery. There was a perpendicular shaft down to the adit level, and for 300l. or 400l. that shaft was put up, and it made into an engine-shaft, which would be a great saving. They were also driving cut on another lode. The tin which was being returned was being worked on tribute.

Mr. MICHELL said the piece of ground to which the greatest value was attached was the piece of ground which was known to exist between two rich mines. As Capt. Vivian had said, the companies working them could not agree, and the ground was unworked for a very considerable time. The object now was to work the mine at a point where a well-known lode was known to exist.

Mr. CHAIRMAN, in reply to a question, said that in the neighbouring mines (now included in Trevaunance) ends had been driven right up to the boundary, but they could not get into this piece of ground. The cross-cut which was now being driven was driven at one time by Mr. Enys, who got all his profit from (say) 5 acres, and spent 6000l. in driving the cross-cut which this company were continuing to-day; but Mr. Enys could not go any further at the time, Mr. Enys knew very well what he was about in driving the cross-cut, and spending the money he had done. (Hear, hear.)

Mr. JAMES: We are much obliged to him for doing it. (Hear, hear.) The CHAIRMAN: We have now an undisputed title to the whole; and we are now in a position to work that piece of ground which could not be worked before. (Hear, hear.)

Mr. JAMES said he had had the mine inspected by a competent man, who assured him that the West Kitty lode underlay in the Trevaunance, and would be got in depth. They seemed to have such a good thing in the present lode that he hoped they would pay expenses till they got West Kitty lode, and something more.

The CHAIRMAN: I will read an extract from Capt. Vivian's report of March 8, 1882. He says:—'I will tell you, without fear of contradiction, that we have one of the best tin mines in Cornwall.' (Cheers.)

The resolution for the adoption of the report and accounts was then put and carried unanimously.

Mr. S. PAYNE (Exeter) moved that a call of 1s. per share be made, payable at Messrs. Williams, Williams, and Grylls, Truro, on or before Dec. 15. Mr. Payne said he moved the resolution with pleasure; he believed they had a most excellent property in Trevaunance, and all the shareholders had to do was to supply the indications were good, but they must go deeper before they could expect to reach anything of a productive character. The cross-cut which was now being driven yielded 11½ per cent. in copper, which was a very good percentage for a mine of this character; if they could only find a little more of this character they might congratulate themselves. As far as the financial position of the company was concerned, they had spent a good deal in hard work, and it must be evident to the shareholders that the time was not far distant when they would have to consider what must be done to carry on the mine, provided they did not meet with the discovery which were anticipated. There was reason to believe there was a valuable lode on the western ground, and perhaps it would be a question whether they could not dispose of that to sufficient advantage to bring in funds to carry on the present workings, and thus avoid raising further capital. In conclusion, the Chairman moved the adoption of the report and accounts.

Mr. JOHN TAYLOR said he had to apologise for the absence of Mr. Richard Taylor, who was unable to be present in consequence

THE HINGSTON DOWN CONSOLS MINING COMPANY.

The nineteenth ordinary general meeting of the shareholders was held at the offices, Queen-street-place, yesterday.

Mr. H. P. HALL in the chair.

Mr. JOHN ELPHICK (the secretary) read the notice calling the meeting.

The CHAIRMAN said the report gave all details with regard to the amount of work done during the past six months, and he did not know that he could give much information in addition to what was contained therein. They had been working hard without much success with regard to the discoveries made. The directors were told by the agents that the indications were good, but they must go deeper before they could expect to reach anything of a productive character. The cross-cut which was now being driven yielded 11½ per cent. in copper, which was a very good percentage for a mine of this character; if they could only find a little more of this character they might congratulate themselves. As far as the financial position of the company was concerned, they had spent a good deal in hard work, and it must be evident to the shareholders that the time was not far distant when they would have to consider what must be done to carry on the mine, provided they did not meet with the discovery which were anticipated. There was reason to believe there was a valuable lode on the western ground, and perhaps it would be a question whether they could not dispose of that to sufficient advantage to bring in funds to carry on the present workings, and thus avoid raising further capital. In conclusion, the Chairman moved the adoption of the report and accounts.

Mr. JOHN TAYLOR said he had to apologise for the absence of Mr. Richard Taylor, who was unable to be present in consequence

of being detained in Paris, on business. Referring to the works in the mine, he drew attention to the No. 1 and No. 2 lodes, and said that the directors were looking forward to the junction of these two lodes with much interest. Capt. John Gilbert, with whom he had a conversation on the previous day, had a very good opinion of the property when certain works now in hand were carried out. With respect to the junction of the two lodes, the shareholders were aware that there were two veins dipping in the same direction, and at a certain point they must meet, but what the depth would be, and the exact position, was not known. He believed that many shareholders would enter upon this as a fair speculation. (Hear, hear.)

The CHAIRMAN said they were obliged to Mr. Bladen for the suggestion. After some further discussion, the resolution for the adoption of the report and accounts was put and carried. The meeting then broke up.

ARUBA ISLAND GOLD MINING COMPANY.

A special general meeting of shareholders was held at the offices, Gresham House, Old Broad-street, yesterday, Mr. WIDDICOMBE in the chair.

Mr. A. MACKENZIE (the secretary) read the notice convening the meeting.

The CHAIRMAN having expressed his regret at the absence, through indisposition, of the Chairman of the company (Mr. Smedley) said: Gentlemen, you will have heard from the notice which has just been read to you by the secretary that this special general meeting has been called for the purpose of considering the proposal made by the mortgagees of the Aruba Island Gold Mining Company (Limited), which is now being voluntarily wound-up, and also the propriety of granting a new agreement to develop and work the company's gold mines in Aruba, and to pass such resolutions with respect thereto as may be deemed expedient. In the first place I will read to you the proposal of the mortgagees of the Agency Company, which is as follows: (The Chairman read the proposal.) You will observe by this proposal that in the event of this company concluding certain arrangements for granting a new agreement to work and develop the company's mines, the mortgagees of the Agency Company propose to assign to this company all their interest in the property of the Agency Company, in consideration of their receiving from this company one moiety of the one-fourth of the profits to be received under any agreement to be entered into with a new working company in payment of the principal of the mortgage debts of the Agency Company, amounting to 21,000*l.* in their present order of priority, with interest at the rate of 10 per cent. per annum, the mortgagees foregoing the interest now owing to them, which amounts to several thousand pounds; that certain plant shall be taken by the new company at a valuation, and that the new company shall not borrow money until their shares have been subscribed for to the extent of 15,000*l.*, and paid up to the amount of 10,000*l.*; and that if the negotiations now pending should fail, the directors should be empowered to enter into an agreement for the formation of a company to work the mines with Mr. G. L. Smith. If the requisite resolutions are passed to-day the directors of this company propose to renew negotiations with an eminent firm of mining engineers in the City of London for granting a new working agreement to the new company to be formed by them, with a subscribed capital of 15,000*l.*, and it is proposed that the principal terms of that agreement shall be that the new company shall pay over to this company a dead rent of 300*l.* a year to enable it to perform its obligations to the Colonial Government of Curacao; also one-fourth of the net profits to be made by the new company, which will also purchase at a valuation whatever machinery, plant, and stores this company may acquire from the Agency Company or its mortgagees. The new company will also have the option of purchasing from this company certain tailings now upon the island for 3000*l.*; but in the event of that company declining to purchase them at that price, they will concentrate them at the cost of this company, and consign them to Messrs. Henry Bath and Son, Swansea, for sale for the benefit of this company. It may be of interest to you if I now read you the report, dated Jan. 27 last, of Mr. J. Sewell, the general manager of the Agency Company at Aruba, with respect to both the mines and the tailings. He (the Chairman) read the report, which was of a highly satisfactory character, the assays ranging from 27 ozs. 1 dwt. 20 grs. of gold, and 44 ozs. 3 dwts. 3 grs. of silver to the ton, to 4 dwts. 8 grs. of gold and 9 dwts. 20 grs. of silver to the ton. The average yield of the 13 samples, assayed was about 5½ ozs. of gold to the ton, with a high percentage of silver. From this report you will perceive that he speaks in most encouraging terms of the value of the mines, and reports that none of his assays of the tailings showed less than 18 dwts. of gold per ton. The advantages to be gained from coming to an amicable arrangement with the mortgagees of the Agency Company are that it will enable this company to get back the long-undisturbed possession of the mines, and of the plant and stores, and the tailings now upon the island, and thus greatly facilitate the proposed new working agreement with the intended new company. If some arrangement is not concluded with those mortgagees it is apprehended that they will initiate legal proceedings against this company, which might greatly embarrass the directors, if it did not indeed altogether defeat them carrying out new arrangements for the vigorous development and working of this company's mine. I will now read to you the resolutions which have been submitted to the directors of the Agency Company for their consideration for the purpose of giving effect to their proposal, which you have already heard read, and before they are put to the meeting I, as the Chairman to-day of this company, shall be happy to give any explanation with respect to any of them which any gentleman present may desire to receive.

Some discussion ensued as to the terms of the proposal, and it was considered desirable that the meeting should be adjourned so that the shareholders might have an opportunity of considering the statements put before them.

On the motion of Mr. NORRIS, seconded by Mr. DAWSON, the meeting was adjourned until Tuesday next.

COPIAPO MINING COMPANY.

The ordinary general meeting of shareholders was held at the offices, Dashwood House, yesterday, Mr. J. DUNNINGTON FLETCHER in the chair.

Mr. RALPH S. ARCHBOLD (the secretary) read the notice convening the meeting, and the report of the directors was taken as read.

The CHAIRMAN moved that the report and statement of accounts for the year ending June 30 last be received and adopted. Before putting the motion he wished to make a few observations on the report, and to allude to a few of the topics that were mentioned in it.

As regarded the accounts, they spoke for themselves. There was a balance of profit of 19,733*l.*, a balance which certainly the directors were satisfied with, and he hoped the shareholders would be also. As alluded to in the report the monthly cards sent out to the shareholders really conveyed to them all that the directors knew. The bulk of the profit had come from the Dulicua Mines, the ore of which yielded 20 per cent., occasionally rising to 21, and, on one occasion, to 24 per cent. The Olico Mine had also been steadily improving, and the production of 60 to 70 tons per month had risen, according to the last report, to 135, with a steady average percentage of 12 per cent. The silver mine had left no profit; it was worked at a loss, but the loss was very small, and the mining superintendent was still hopeful that they might come on something good there.

At any rate, the indications were so far favourable that he felt perfectly justified in continuing the explorations. Of the machinery, materials, and stores in transit to Chili, 5507*l.*, about 3000*l.* was for a new engine. As the mine got into depth it was found necessary to get a new engine, and it was confidently expected that when this new engine was got to work not only would the production be increased but the cost would also be lessened. The landed estates had left a profit of 2728*l.* 18s. 3d. He had on previous occasions alluded to these estates, and those who were then present would no doubt remember the statements made by the Chairman. But so many new shareholders were constantly coming in that they might be really ignorant of what their property consisted of, so that a short allusion to the matter might not be disagreeable to the new shareholders. The estates were about 13 miles in length, and were now used for the pasturing of cattle and for the purposes of general agricultural produce. It might seem somewhat strange that a mining property should be in possession of landed estates of this character; but he must ask the shareholders to remember that when the company was formed, nearly 50 years ago, railways were non-existent, and the only means of transport was by mules, so that the estates were purchased for pasturing for mules. It was calculated that they would afford pasturage for 1000 mules. The original object for which the purchase was made no longer existed, but the population was increasing, and was likely to increase in that part of Chili; and as it increased their estates must augment in value, and at present even they yielded a fair return. They had another small estate, and these were the assets of the company, irrespective of mining property. Taking it altogether, he thought they would agree it was about as valuable a property as any mining company could hold, considering the amount of their capital. There was a large amount of low-class ore lying on the mines, and it was hoped that now they would be able to make them available, and to get a profit out of them. This matter, however, was in embryo, but their manager spoke confidently on the point, and said that about 30,000 tons of 7 per cent. ore could be made available, and that would form a considerable asset in the future property of the company. Those were the remarks which he had to make on the report, but he had to observe that their interests in Chili were most ably represented by Mr. Bowditch and Mr. Hall, who deserved the best thanks of the shareholders, and he (the Chairman) was only too happy to bear this public testimony to their valuable services. As regarded the financial operation alluded to in the report, that had been so amply explained at previous meetings that he would not enter further into the matter. He moved the adoption of the report and accounts.

Mr. WRIGHT said that he supposed that if peace were concluded between Chili and Peru that would have a beneficial influence on their properties.

Mr. HARRINGTON did not think that would have much influence.

The CHAIRMAN said there was rather a scarcity of labour at present, and, of course, if the war ceased a large amount of labour would be set free, so that the question that had been asked from that point of view was a very apposite one.

Mr. HARRINGTON then seconded the motion for the adoption of the report, which was put and carried unanimously.

Mr. JAMES said they had all heard the able exposition of the Chairman of the

affairs of the company, but he thought that if anything they had understated the state of their future prospects. The Chairman had touched but little on what they might expect to receive from the ore lying on the dumps. The Chairman omitted, with the modesty which characterised the board, to refer to the sum standing to their credit on capital account, and he (Mr. James) thought he might fairly say that if they were to wind up the mines, and they were to prove valueless, the directors would be able to return to the shareholders at least 6s. 8d. in 1*l.* out of the assets of the company irrespective of the mines. He was connected with many mines, but did not know of any that were in that position. Many other mines might be in the position of being able to make large profits, but they had nothing to fall back upon if the mines gave out. He alluded to the time when the company was not in such fortunate circumstances, and said that then the directors generously gave up the remuneration to which they were properly entitled. He moved that the remuneration of the directors be increased from 700*l.* to 1000*l.* a year, to date from July 1 last until altered by the shareholders.

Mr. GARNETT, in seconding the motion, said the directors had given their best attention to the interests of the company in bad times as well as good, and this was simply a matter of justice to them, as for many years they had held office without remuneration.

The motion was then put and carried unanimously.

The CHAIRMAN, having acknowledged the vote on behalf of himself and colleagues, a dividend of 8s. per share was declared, from which the call of 2s. per share will be deducted.

The retiring directors and auditors were re-elected, and a vote of thanks to the Chairman and directors then terminated the proceedings.

CWM DWYFOR MINING COMPANY.

An extraordinary general meeting was held on Tuesday at the offices, St. Clement's House, Clement's-lane, Mr. C. BARTON in the chair.

Mr. G. J. GRAY (the secretary) read the notice convening the meeting. The resolutions passed at the meeting held on the 31st ult., winding up the company voluntarily and transferring the property to a new company, to be called the Cwm Dwyfor and Brynarian Mines Company (Limited), with a capital of 20,000*l.*, in 20,000 shares of 1*l.* each, in consideration of the allotment of one share in the new company credited with 10s. paid thereon for each share held in the company, provided such share in the new company is accepted on or before Dec. 15 next, were confirmed.

It was reported to the meeting that work is being continued in Joseph's level at the Brynarian property, in order to intersect the Brynarian lode, which is believed to be a few fathoms only from the present end of the level. The level has now been driven a total length of 187 fathoms.

EAST TREGEMBO TIN MINE.

Gentlemen constituting the syndicate working this valuable mine embraced the opportunity of meeting at Mr. Granville Sharp's office, 32, Queen Victoria-street, on the 24th inst., to hear from Captain Edward Chegwini, the manager of the adjoining rich Tregembo Mine, and who is gratuitously superintending East Tregembo, a verbal account respecting the highly important discovery opened out in the adit level within the last few months.

Mr. GRANVILLE SHARP (unanimously voted Chairman) said it had suggested itself to him that, as Capt. Chegwini was in London for a few days they might like to be introduced to the worthy gentleman who was not only looking after the operations at the mine gratuitously for them, but had been the means of their becoming possessed of East Tregembo, from one of the many lodes of which mine the lumps of tin ore on the table before them were broken.

He (Mr. Sharp) had been to the mine three times and underground twice. On the first inspection he had some ore broken from three different points in the adit level, which, on being brought to surface, were tested in the usual way by "vaning," proving that the best sample of tin was broken at the furthest point of the level, establishing the important fact that the level was being driven in a regularly continuous good course of tin.

His second inspection underground was so recently as three weeks ago, when he found that a very decided improvement had taken place in the character and value of the lode for at least 10 fathoms in length of very rich tin ground, from which the produce on the table before them was a portion of the large quantity brought to surface.

It was, indeed, most gratifying to him that the level was equally rich throughout the whole distance (10 fathoms) as the ore before them. He noticed at about 5 fathoms behind the extreme point of the drive that a branch about 12 to 15 ins. wide of the same very rich ore had come from the east into the adit termed the Ten o'clock lode. He had a handful broken from this branch, also some taken from the Ten o'clock lode in the bottom of the level, and the value of the lode for at least 10 fathoms in length of very rich tin ground, from which the produce on the table before them was a portion of the large quantity brought to surface.

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shareholders at a general meeting and the committee, until rescinded, had no power to alter it.

Lodes vary almost daily; at times rich, and at others poor. A valuation may be 20*l.* per ton to-day, 5*l.* to-morrow, before even a fathom has been driven. It is best, therefore, and safest for bona fide holders to look at results, and not at every little change in the value of a lode. The latter, however, suits speculators best, for it enables them to work shares up and down according to every temporary change in the mine. But this can only be done by constant and almost daily inspections, inspections that cost money; and we do not suppose any outside shareholder supposes for a moment that these constant and expensive inspections are made for any other than individual advantage.

We understand that most of the mines in the Tavistock district have regular inspecting days, and the practice, therefore, was not confined to Crebor.

At West Crebor the shaft has been set to sink below the 50; lode worth 15*l.* per fathom.

The water is drained 5 fms. below the 30 at Langford. Here there is a "choke" which will have to be cleared.

At New Caradon the adit has been cleared and secured for 60 fms. There are one or two "chokes" or interruptions, but nothing of any importance.

In the 40, west of James' winze, at East Blue Hills, the lode is divided into two parts; and the south part seems to the agent to be the principal, and is now 3 ft. wide, worth 8*l.* per fathom. This he considers important, for reasons stated in his report.

We understand in consequence of our remarks on Kirkmichael last week several applications have been sent to the office for shares at 5s. each, 1*l.* paid. A circular will be sent out and shares offered to present holders *pro rata*.

We are informed that about a month or six weeks ago Snaefell Mine, in the Isle of Man, was so poor that it was intended to wind-up the company, which is in 50,000 shares of 1*l.* each. These were then selling at 1s. per share. In a few days in continuing a long cross-cut a lode was cut into worth, we are told 10 tons of lead ore per fathom, and shares rose to 1*l.* 10s. each. This is encouraging for Kirkmichael.

The sampling at Wheal Crebor will be 410 tons. At the cross-cut south at the 132, to intersect the south lode, the ground is highly mineralised, with indications of being near the lode. This is an important point to watch.

We are daily expecting rather important news from D'Eresby Mountain.

MINING MACHINERY, MILLING MACHINERY Of the MOST APPROVED AMERICAN PATTERNS.

GOLD MILLS.

The California pattern of Gold Stamp Mill is universally accepted as the most perfect, economic, and efficient made.

We have over 900 stamps in successful work in the various Western Gold Districts.

SILVER MILLS.

Silver amalgamation in Pans is essentially an American system evolved after years of work on the rich silver mines of Nevada.

We have over 500 Stamps, with necessary pans, settlers, roasting furnaces, &c., all of our own manufacture, at work in different silver camps of the United States, Mexico, and South America, and Philippine Islands, Asia,

CONCENTRATION MILLS

Of the most approved German pattern and arrangement, or with Stamps and Frue Vanner Concentrators for low grade silver ores, light in lead. We have over 20 large German pattern mills at work on lead, zinc, or copper ores, and numerous Vanner mills on ores never before successfully concentrated.

Mining Pumps, Cornish pattern, of the largest sizes, Hoisting Engines from 4 h.p. up to the largest direct-acting engines to sink 3000 feet.

SMELTING WORKS.

We have 80 Water Jacket Smelting Furnaces in use from 20 in. circular up to 54 in. by 60 in. for lead and silver smelting; and special High Jacket Furnaces for copper ores.

Engines of any size, plain slide valve, Corliss, compound Corliss. Boilers, all sizes. Leaching Mills, Hallidie Wire Rope Tramways, Comet Crusher, with capacity of 12 to 20 tons per hour. White, Howell, Bruckner, and Stetefeldt Roasting Furnaces, &c.

We have had twenty years' experience in the manufacture solely of MINING MACHINERY, and have special facilities for shipping to all foreign parts through our New York Office, where all details of clearance, shipment, and insurance are conducted. Our machinery is already well known in Mexico, Peru, Chili, Venezuela, Honduras, and other South American countries.

Correspondence solicited. Descriptive Circulars and Catalogues on application.

FRASER & CHALMERS.

PRINCIPAL OFFICE AND WORKS. NEW YORK OFFICE

Fulton and Union Streets, No. 2, Wall Street,
Chicago, Ill., U.S. New York, U.S.

COLORADO OFFICE—CHEESMAN FLOCK, DENVER.

ORGANOS GOLD.—The reports just received are deemed satisfactory. A second crushing has been made and the 30 tons treated have produced 63 ozs. of gold, or an average of over 2 ozs. per ton. It would appear that the tailings have yet to be treated. A bar of gold about 5 lbs. in weight has been forwarded to England and it will for a few days be on view at the company's offices. The stamping machinery is not yet entirely erected, but its completion and the commencement of crushing on a large scale will, it is expected, be announced in the next report. The crushing of many tons, as in Organos, gives good ground for calculations as regards prospects. It is mentioned that an average of ½ oz. of gold per ton of quartz will at most mines yield a handsome profit. It appears that all the Colombian mines are doing well. The Tolima heads the list with a profit of over 5500*l.* for September, making nearly 13,000*l.* for the three months.

CORNISH TALES.—To those interested in Cornish dialect "Tom Soddy" and "Bud, Whit, an' Blue," published by Messrs. Netherton and Worth, of Truro, will prove acceptable.

HOLLOWAY'S OINTMENT AND PILLS.—SURE RELIEF.—The weak and enervated suffer severely from nervous affections when storms or electric disturbances agitate the atmosphere. Neuralgia, gouty pains, and flying pains, very distressing to a delicate system, may be readily removed by rubbing this ointment upon the affected part after it has been fomented with warm water. The pills, taken occasionally in the doses prescribed by the instructions, keep the digestion in order, excite a free flow of healthy bile, and regenerate the impoverished blood with richer materials resulting from thoroughly assimilated food—wanting which, the strongest must inevitably soon sink into feebleness, and the delicate find it difficult to maintain existence. Holloway's ointment and pills are infallible remedies.

BRITISH MINES.

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composed of capel and peach, with munda and a little tin ore. This falling off in size and value of the lode is, we believe, temporary, and we hope it will soon improve. The depth sunk during the past week is 3 ft. In the 62, east of the north engine-shaft, the lode is 2 ft. wide, of a very promising character, and yields a little good quality tin ore. We started the rock-drills at this point of operation on the 22nd inst., which work exceedingly well, the distance driven during the four days to Saturday evening being nearly 6 ft. In the 48, east of engine-shaft, the lode is 4 ft. wide, and composed of a strong capel, with peach, prun, munda, and a little tin ore. The distance driven during the past week is 1 ft. 6 in. All the other points of operation are without any important alteration.

LANGFORD.—R. Goldworthy, Nov. 29: The engineers are busily engaged erecting the drawing machinery, which we hope to get completed in a week or ten days. The water is drained 5 fms. below the 30, where the shaft is choked, and no doubt is full to the bottom. The shaftmen are now engaged putting timber to secure the footwall, which is very weak. Everything is being pushed on as fast as the nature of the work will allow.

LLANDEGLA.—H. Hotchkiss, Nov. 29: We commenced raising the water out of new shaft on Monday evening, with the new lift, and have sunk the water to the depth of 12 yards. The men are to-day dropping the lift to the bottom of the shaft; by to-morrow night we shall have forked the water to the bottom, all going well, when the sinking of the shaft will be resumed with vigour.

LOVELL (THE).—J. Prisk, Nov. 28: The 20 ends, east and west on No. 1 lode, are producing saving work for tin, and are two very kindly points. The shaft is now down 7½ fms. below the 20. In another month I hope to be at the 30, or very nearly, when we shall have only 2½ fms. to cross-cut north to the lode. I shall have to sell another parcel of tin shortly.

MARK.—J. E. Valley, Nov. 29: There is no change to notice in either of the pitches or bargains throughout the mine since last reported on. The ground in the cross-cut, driving south at the 80 fm. level continues favourable. At Wheel Jenkin good progress continues to be made in the sinking of Bellingham's shaft.

MELANEAR.—W. R. Toms, S. Harris, Nov. 29: The ground in the 30 cross-cut, south of Gundry's shaft, is easy for driving and good progress is being made. The 70 cross-cut, driving north of main lode, is in a congenial channel of ground for the production of copper ore. In the 30 west of shaft the south part of the lode is 5 ft. wide, yielding 2 tons of ore per fathom. The lode in the 100, east of shaft, is 5 ft. wide, yielding fully 1 ton of ore per fathom, and looking kindly for further improvement. The winze in the bottom of this level, east of shaft, is yielding ½ ton of ore per fathom. In the 110, east of shaft, the lode is 4 ft. wide, yielding 1 ton of ore per fathom. In the same level, west of shaft, the lode is 5 ft. wide, yielding 2 tons of ore per fathom. The part of the lode carrying in the 120, east of shaft, is 4 ft. wide, yielding 2 tons of ore per fathom; we think this level will improve as we get under the ore gone down in the level above. The rise in the back of this level is yielding 1 ton of ore per fathom. In the 90, east of old engine-shaft, the lode is 3 ft. wide, yielding stones of munda, blende, and copper ore. In the 110, east of shaft, the lode is 2½ ft. wide, but yielding nothing to value. In the same level, west of shaft, the lode is 3 ft. wide, composed of spar, capel, and peach, with stones of munda and copper ore. All our machinery throughout the mine is working with its usual regularity.

MID-DEVON COPPER.—Jas. Nell, Nov. 27: A Shaft: The influx of water caused by heavy rains increasing. Stopped wheel on Friday, and Sunday to tighten crank on the wheel when water rose to nearly 70 fm. level. Machinery now doing good duty, and water being slowly forked towards the 80.-C Shaft: The 45 fm. stope, east of shaft, is worked by eight men and two boys. The favourable strata and other indications previously reported continues. I am expecting daily to see it improve in the yield of ore; 1 ton raised this week. The 50 is driven, by six men, 1 fm. 1 ft. The strata favourable, being chiefly composed of garnet, quartz, hornblende, a little chlorite, and occasional stones of yellow and black ore—a promising drive.—Surface, Rock-Drill, Wheel, &c.: The wet weather still hinders this work. The masons although taking advantage of dry portions of the day, worked two days and a half for the week. All other surface work being pushed on.

MONA COPPER.—T. Mitchell, Nov. 29: Operations are being carried on with more energy than for some time past. There are now more hands employed, amongst whom are some Cornish miners. The men are all working in good spirits. The winze below the bottom level has been suspended for the present on account of having so much water to contend with, which makes progress slow and expensive for sinking. This winze can be sunk much faster and with less expense after the pump shaft has been sunk another 100 yds., and the water drained to another level. The men are now engaged cutting ground and getting the place ready for sinking the shaft, which work is being done as fast as possible. The men from the winze have been removed to sink the new shaft in the western part of the mine. They have drawn out the standing water, and have commenced sinking the same, in which there is a strong lode of a very promising character. Capt. Bowden has to-day broken some very nice stones of copper ore from the bottom of the shaft, which is now at a depth of 7 yards.

MOUNT CARBIS.—Geo. Johns, Nov. 30: We have extended on the lode at the 50, east and west, 7 fms. in length, carrying for that length more than half the lode. The ground is good, and the lode is worth 1 ton of tin, thus proving conclusively that the lode has not been over-valued in any report thereon. The lode in the end and in the rise is worth 50¢ per fathom at each point. We are cross-cutting north at the 50, and letting down a considerable quantity of water, although, unless there is an increased underlay, we expect to drive here some fathoms before tapping the next lode. We are still prevented from working in the bottom of the 30 north by the water. This will, however, be drained by the 50 cross-cut. All other places are without change.

MUNYD GOULD.—Thos. Kemp, Nov. 29: I have to-day been through the mine, and find that the 46 west of the 48 end has not undergone any change calling for special remark since my report of last week. In stripping the ore-bearing part of the lode to the full width to the west of No. 1 cross-cut from the main level, the 46 is from 6 ft. to 7 ft. wide, being composed of kila, calspar, and quartz, intermixed with silver-lead ore; present value of 70¢ to 80¢ per fathom, with a good appearance for an improvement. The lode in the stope over the back of No. 2 cross-cut on caunter is worth about 12¢ per fm., in ground still tight for opening. Saturday next being our setting day a full report shall be sent in next week.

NEW CARADON.—N. Richards, Nov. 29: We have cleared and secured about 60 fathoms of the adit level, and have now reached another close run, which I do not think is more than about 3 fathoms in length, which in all probability we shall get through in five or six days from this date. The securing of the top of the shaft is also in a forward state, and will be ready in a few days for fixing the footway, &c., to this level.

NEW TERRAS.—T. R. Pryor, Nov. 30: The ground in the engine-shaft is now sufficiently compact as to stand timber. It is a little harder for sinking, but not so expensive, as we do not require to timber it. The rock is a bluish buff coloured clay-slate highly favourable for the production of tin. I have drilled the ground and find the shaft is a few feet below adit, and in a few days we shall commence to cross-cut from adit to engine-shaft, so as to communicate the adit level with the engine-shaft. We shall then cut pit, when we shall be able to lay down tramroad and send any reasonable supply of tin-stone to surface as may be required. When this is done we shall continue the sinking the engine-shaft another 10 fathoms, and then drive out under the rich course of tin in the winze. All other necessary work is being pushed forward.

NEW TRUMPET CONSOLS.—R. Quentrell and Son, Nov. 30: There is no particular change to notice on Franchis lode since our last report.—Wheal Valla Lode: We are making good progress in the sinking of Trenethick shaft below the 16, and the lode is opening out very well. We expect to communicate the rise above the 16 with the winze below the adit level during this month, which will lay open some stopping ground of fair quality.—South Lode: The adit end continues to look very well, and we have broken some excellent tin-stone from this end of the shaft. We are sinking a shaft from surface just before this end, as we think we have excellent prospects on this lode.

NEW VAN CONSOLS AND GLYN.—James Roach, Nov. 29: This week we have four men driving cross-cut south-east in lode at the 50, east of Murray's shaft, in virgin ground. The breast still contains branches of limespar and cubes of lead; valuable produce may be looked forward to as the drive progresses. About 7 fms. more will penetrate a highly promising portion of this very wide lode; price for driving 35. 50. per fathom. The rise in the 50, on the south part of lode, is now 7½ ft. above the level, where we have some solid strata of lead, which are no doubt connected with the ore under sole of intermediate level. We expect to open out a good piece of stopping ground here. Stopping above the 70, on north part of lode, is now in operation. Estimated produce for 11 fms. in length is 1 ton of lead per fathom; price 45s. per cubic fathom, including timbering, filling gunns, &c. The three sections of ground working in No. 1 stope will average 15 cwt. of lead per fathom; all stoping at 45s. per cubic fathom. As soon as instructions are received from the board I will sink under the 50 on south part of lode, which represents money value of 10¢ per fathom. We have 13 tons of lead raised towards our next sampling, which we shall daily increase.

NEW WEST CARADON.—N. Richards, Nov. 29: The main lode in the rise in the back of the 30 will yield about 1 ton of copper ore per fathom. A winze sinking below the 55 on this lode will yield 1 ton of ore per fathom. The caunter lode on which we are driving west of Hallett's cross-course, has a more promising appearance than for some months past, and is producing some good stones of ore. There is no other change to notice since last week's report.

NORTH BURY.—John James, Setting Report: The 32 fm. level to drive east of cross-cut engine-shaft, by six men, at 8¢ per fathom; we have about 10 tons of tin in the 117 end, which is daily improving, and is now producing good stones of tin; we shall be able to ascertain its value next week. The 13 fm. level to drive east of engine-shaft, by six men, at 8¢ per fathom; we have about 5 fms. more to drive to communicate with the winze sinking below the 41 fm. level; when this is done we shall have some good stopping ground opened. We have set a winze to sink below this level (13), in a good lode of tin, to four men, at 7½ cwt. per fathom.—Old Mine: The winze to sink below the 41 fm. level, west of Trenbarrow shaft, by six men, at 8¢ per fathom; the winze we hope to sink to the 13 fm. level in another six weeks. The 30 fm. level to drive east of flat road shaft, by six men, at 6¢ per fathom; the lode is 1½ ft. wide, producing saving work. From the appearance of the lode and strata about it we may look for an early improvement in this end.

NORTH GREEN HURTH.—Jas. Polglase, Nov. 23: The deep adit level cross-cut continues in the same favourable ground for driving. The south level from the deep adit is much the same as last reported. The drive south from the shallow level cross-cut is without change.

NORTH GROUN WILKIN.—J. K. and Son, Nov. 25: Since the date of our last report, which gave a full and detailed statement of our operations and prospects, but very little change has taken place at any of the several points. At the bottom, or 36 fm. level, the lode yields some good ore for the dressing floors, and looking at the productive nature of the lode, as far as laid open by our limited operations, we fully believe the future development of the mine will be attended by very satisfactory results. We have delivered the parcel of lead ore sold to Messrs. Neville, Druce, and Co., and are preparing another for the market.

NORTH HURTH.—J. Telesco, Nov. 30: We have taken down the lode in the 117 end this week; it has increased in size, being now 3 ft. wide, but it is not producing so much ore as it did; I hope this is only a temporary falling off, as the ground by the side is still congenial for producing lead ore. We have secured the ground, &c., in the open space; we holed to it last week, and have begun to stop the back; the lode will yield about 5 cwt. per fathom. The stope in the back of the 117 will also yield 5 cwt. per fathom. I purpose putting two of our men to sink a winze in the bottom of the 80 to prove the shoot of ore that went some time ago. In that case some time since, I hope we shall be able to prove this piece of ground now in the drive in the 117 has drained the principal part of the water that formerly came out the 80.

OKEL TOR.—H. Bulford, J. Roide, Nov. 29: We have at the new east shaft to sink 2 fathoms below the 65, including the cutting of top and bottom flats, by 12 men, per bargain 75¢. The lode in the 50 east is producing more munda, and has good indications for improvement. In the winze below this level the lode is large, and producing 15 tons of arsenical ore per fathom. The stopes in the back of the 50, on the intermediate lode, are producing 7 tons of arsenical ore per fathom. The 65 stopes in the western part of the mine are producing on the average 13 tons of arsenical ore per fathom, and those in the 35 are producing 11 tons arsenical ore per fathom.

OLD SHEPHERDS.—R. Nancarrow, J. Nancarrow, Nov. 23: South Mine: Since our report of the 14th inst., we have sent down our main lode and connected same, also the drop-lift, which, with the balance-bobs, is working admirably, and forking the water for a deeper level, and no time shall be lost to reach the bottom of the mine. The old sump shaft is now secured complete to about 23 fms. below adit, where we have just discovered a large plat, and no doubt a cross-cut is put out to the lode. At this depth we find there is either a choke, or the shaft collapsed over.—Treasurer's Shaft: Here we are glad to say we have effected a communication with the cross-cut at the 44 below adit, which is driven from this to Harvey's engine-shaft, which has ventilated the mine to this depth, and we hope the clearing of this level, together with the 26 and 34, will be proceeded with without interruption. Up to this time, owing to the air being so bad in those levels and nearly full of stuff, we have not been able to say anything more of the lead than has been previously reported on, but hope in a day or two to prove more of this, when you shall be advised the result without delay. The engineers are busily engaged with the erection of the winding engine, having found spring and side-bearers, bob-plate, and stools, and also preparing to lift the bob in its place, which we hope will be done to-day. The masons are making fair progress with the buildings in the west end ground for the 39-in. engine considering the severe weather. The dressing machinery is dispatching its usual quantity of stuff, and producing its regular quantity of lead.

PAKYS COPPER CORPORATION.—T. Mitchell, Nov. 30: The lode in the driving at the 65, east of cross-course, is looking better to-day. The copper is getting more compact, and worth at present about 1 ton in a fathom—a kindly sign. The water is still hindering the works at the surface trial in the western ground. But a few days dry weather would enable us to carry on the work without any interruption.

PATTERSYKE AND GLARGILL HEAD.—John Peart, Nov. 24: Top Level: There is very little change at this point since my last report. We still keep getting ore, but only in small quantities.—North End: This working is only poor at present; the vein is improving a little, and we have got a better check on the west side.—Low Level: We are now taking out the arch we got up to a fortnight ago, making it wider and higher where it is very low. When I was improving yesterday I went as far forward as I could get, and would see from 25 to 40 fms. of arch, half of it we will not take out, but only repair the side walls in places where it is very bad, the other half we will in some cases leave one side wall in. By arching it the way we are doing is cheaper than timbering, and a much better job when done. This arch will take a few weeks to get it all made good, but I will get men to go to a time instead of three, and keep the place going night and day when practicable. We have arched and timbered the last fortnight 5½ fms.

PEN-HALLS.—S. Bennetts, J. Goynne, Nov. 29: The lode in the 80 west end continues, as last reported, and worth 7¢ per fathom. The 70 east end is producing low quality tin-stone, and worth 1¢ per fathom. In the 60 cross-cut north there is no change to notice. The 50 east end is worth 6¢ per fathom, and the west end on the same section of the lode 12¢ per fathom. On the Balldu lode the 40 west end is worth 15¢ per fathom, and the winze below the 30 8¢ per fm.

PENNANT.—J. Kemp, Nov. 30: Our operations throughout the mine have much improved; we are getting good lead with the sulphate of barytes on the various stopes; indeed, everything is looking more satisfactory than for some time past.

PEN-YR-ORSEDD.—R. Princes, Nov. 30: We have evidently got through the unproductive beds of ground if have not cut the lode; the last batch the men put in went through into soft ground, and with it issued a feeder of water, which will we expect drain away before long, and permit me to examine the discovery. One thing is clear we are into the bearing measures, which is of the highest importance.

PERRAN SILVER-LEAD CONSOLS.—Edward Moyle, Wm. Niness, Nov. 30: Pinnock engine-shaft is now 11 fms. 3 ft. 6 in. below the 60; there is no change to report in the size and value of the lode since our last. We regret that our progress here has been slow, but good results may be obtained. The lode, with the rock-drill, which is now at work, and nothing shall be wanting on our part to make it a great success. In the 60 end south our prospects continue to improve as we advance in that direction; a branch of hard spar has been met with running north-east and south-west, which we thought might have had an unfavourable influence on the lode; but such, we are pleased to state, is not the case, as it has kept its course and maintains its value; we have seen no richer work for silver-lead than what we are drawing from here, and if the lode improves as it has done since we commenced driving, we have a rich prize in this portion of the mine. The lode is 1 fm. 6 in. total length, 30 fms. in the winze below the 60 north the lode is composed of nice looking quartz, prun, blende, and silver-lead, and is still improving in value. From the appearance of the lode in the shaft, we are exceedingly anxious to get lower at this point, for reasons stated in our last; sunk 1 fm. 2 ft., and if the ground remains as it is we expect to be down 5 fms. by setting day. We have risen above the 60 1 fm., total height, 3 fms. 3 ft.; we have erected air machine, placed pipes into the 50, started it to work, and it will be the means of expediting our work at two important points—the winze below the 60 and the rise above. We have completed air-compressor and boiler-house, and are making preparations to take out the old boiler.

POLCREBO.—W. H. Martin, Nov. 27: Monthly Report: The engine-shaft is cleared to bottom, which is 14 fms. 3 ft. below the 17; there is no pit out or level driven under the 17. I was pleased to find a change in the character of the lode at the bottom (which had been reported on by old miners, but who knew of no tin in the lode), the lode and branches are 4 ft. wide, principally composed of capel, peach, and munda. Two of my samples produced 20 lbs. of tin to the ton of stuff. This improvement at the bottom in the last week we may reasonably expect the 31 will open up a long run of rich tin ground towards the cross-course and under the tin ground in the 17. To-day the shaftmen are putting in a solar near the bottom and doing other timber work. The rise in the back of the north level is up 10 ft., and we are taking down the lode; as far as seen it is worth for tin from 10¢ to 12¢ per fathom. We have driven the cross-cut north at the 17 about 6 ft. to prove if any more lode is standing. We have put in new timber about the cross-course and cut barrow road preparatory to driving the cross-cut south to intersect the south lode at the 17.—Highburrow Shaft: The timberwork is completed from surface to 7 fms. under adit, and to-morrow we shall commence to draw the water with horse barrels, and the 17 towards the shaft with a full force at each place. After this level is communicated with the shaft it will thoroughly ventilate the mine, and the men will be working on the lode. The heavy expenses for pitwork, clearing, &c., attached to the engine-shaft are finished for the present. At surface we have fitted up part of the carpenters' shop for changing houses, and fixed a water tube to dry the miners' clothes.

POLKESIDE.—V. Bennetts, Nov. 29: On Monday the shaftmen commenced to send down the pumps for the drop lift. Yesterday morning they sent down the remainder, and in the afternoon commenced to drop the lift. This evening we hope to put it to work. By this drop it will enable us to fork a little below the adit.

PRINCE OF WALES.—S. Roberts, Nov. 29: Setting Report: The 122 east cut to six men, at 11¢, 10s. per fm.; the lode when last taken down was 4 ft. wide, composed of spar and capels, worth 8¢ per fm. for tin, with good stones of copper ore. The rise in the back of this end to four men, at 8¢ per fm. We purpose putting up the rise in the side of the lode, which is now 4 ft. wide, and in the lode for tin and 4¢ for copper ore, and blast it down when we have effected a communication with the level above. The cross-cut north, in the 102 west, to six men, at 7¢ per fm.; here we hope to reach the lode shortly. The 90 west to six men, at 10¢ per fm. The lode is somewhat disordered, but it produces a little ore, and from it flows a large stream of coppery water, which leads us to think there is a large deposit of ore before us. The stope in back of this level (the 90 west) to four men, at 6¢ per fm.; lode 3 ft. wide, worth 8¢ per fm. for tin and copper ore. The stope in back of the 90 east to four men, at 6¢ per fm.; the lode is 1 ft. wide, worth 10¢ per fm. for tin. The cross-cut south in the 77, on the course of the western cross-course, to two men, at 6¢ per fm. No setting nor change in the tribute department this month.—Goodluck: The stope in back of the 23 to two men, at 7s. 6d. per ton; lode 3½ ft. wide, worth 8¢ per fathom for tin.

ROMAN GRAVELS.—Arthur Waters and Son, Nov. 28: The 125, north of new engine-shaft, is in a lode 3½ ft. wide, composed of white spar with stones of ore, and looks likely to improve shortly. The 125 south is through the twich, lode now being 4 ft. wide, and yielding good stones of lead ore. The 110 north is without change for some time past. The same level going south of new shaft is worth 1 ton per fathom. The 95 south is worth 2 tons per fathom. The 80 north is worth 12 tons per fathom. The 65 south on east part of the lode is yielding stones of lead ore. The stopes throughout the mine are yielding ore in quantities as follows.—The three stopes in the 110, south of flat-road shaft, are producing together 4 tons per fathom. Two stopes north of shaft are worth 3½ tons per fathom. No. 1 stope in the 95, south of Robert's winze, is worth 1 ton per fathom. No. 2 stope is worth 2½ tons per fathom; and No. 3 stope is worth 5 tons per fathom. No. 1 stope, north of the winze, is worth 1 ton per fathom; and No. 2 stope is worth 1½ tons per fathom. The stope north and the stope south of Jack's winze are worth together 3 tons per fathom. No. 1 stope in the 80, south of Jones's winze, is worth 3 tons per fathom; No. 2 is worth 5 tons per fathom. No. 1 stope north is worth 2 tons per fathom; and No. 2 stope is worth 3 tons per fathom. The two stopes in same level, south of Matthew's winze, are together worth 3½ tons per fathom. The two stopes in back of the 65, following the south end on east portion of the lode, are worth together 4½ tons per fathom. Two stopes in the 55, south of Stoke's winze, are worth together 2½ tons per fathom. The stope in the 50, north of Glover's winze, on the east lode, is worth 3 tons per fathom.

—Nov. 30: There is no change anywhere in this mine worthy of notice since the date of our report (above) to the board this week. We have to-day sent 250 tons of lead ore for 2287½, 10s.

RUSSELL UNITED.—J. Bray, Nov. 30: The lode in the 97, west of cross-cut, is 5 ft. 4½, composed of strong capel and quartz, with slabs of copper and munda; a very dry looking lode. There is no improvement to notice in the 97 east or at Stephen's shaft, since last report.

SILVER HILL.—G. Richard, Dec. 1: We have not as yet intersected the lode in the tunnel cross-cut, but are daily expecting to do so. Water is oozing freely in the heads, floors, &c., in the forebreast. The ground is mixed with munda and copper ore, indicating that we are not far off a good lode. I see no change calling for any remark in the rise up on Wheel Brother's lode since last week. The whole of the lodestuff will produce silver, which is being saved for treatment by reaction works where deemed advisable.

SINCLAIR.—Wm. Edwards, Nov. 30: In the cross-cut to the Miller lode the beds are now almost on their heads, proving the proximity to the lode. Of course it is difficult to say within a yard or two the position of the lode, but we have got such strong evidence of its course it is impossible to be far out. The water is coming out of the shale beds freely, and I hope in a few days the other shafts on the course of the lode will be drained.

SOBRIDGE COPPER.—W. Skewis, Nov. 30: Since my last week's report the water is still decreasing in the shaft, and everything progressing favourably in the side level, which is now dry, where the shaft is being taken away some rich tin-stone. The lode in the stope in the back of the 30 continues about the same value as last reported, as also that in the ends. We have secured the ser-

vices of a good tin dresser, who will commence to work on Monday next, when we shall soon be able to make continuous returns of tin.

SOUTH CONDRURW.—W. Rich, W. Williams, H. King, Nov. 29: In driving the 93 cross-cut south we have met some small branches, but the main part of the lode is not yet intersected. The 80 end, east of King's shaft, is worth 10¢ per fathom; the stope behind this end is worth 15¢ per fathom. The winze in the bottom of the 70 east is worth 8¢ per fathom; the stope in the back of this level is worth 12¢ per fathom. We are putting out a speculative cross-cut south in the 70, east of King's, to hit the south part of the lode. The 60 end east is worth 15¢ per fathom. The 50 east has a kindly appearance, although the lode at present is unproductive; the stope in the back of the 50 east is worth 12¢ per fathom. The 40 end, east of engine-shaft, is worth 7¢ per fathom. The 30 west is worth 7½ per fm.; the stope in the back of the 30 west is worth fully 20¢ per fathom. We have resumed driving the 30 east, but hitherto the lode is unproductive. There is nothing very new to report on in the drives or stopes at Marshall's shaft.

SOUTH DARREN.—H. James, Nov. 30: There is nothing new in the 130. The lode in the 120 east is worth 2 tons of silver-lead ore per fathom. In the 120 west back, a little from the forebreast, we are stripping down the lode, which is worth 2 tons of silver-lead ore per fathom. All other points are without material change. We intend sampling on Saturday 45 tons of silver-lead ore, for sale on Dec. 8.

SOUTH DEVON UNITED.—Wm. Hooper, Nov. 30: The lode now being driven upon at the 110 fm. level, east of Brook shaft, is fully 3 ft. wide, producing spar, munda, and copper ore to the value of 7¢ per fathom. I am pleased to see the lode presents a very encouraging appearance, and, as stated last week, we fully expect the two parts—the north and south—will form a junction as the level is extended east, when we have every reason of making a good discovery. The stopes in the back of this level are worth in the aggregate 35s. per fathom. The stopes at the 110 and 100, west of Brook engine-shaft, are worth 7¢ per fm. respectively. The lode in the 95 is 4 ft. wide, containing capel, spar, munda, and occasional stones of copper ore, but not enough to value. We have ceased rising in the lode at the 80, against Martin's shaft, and have put the men to rise perpendicularly, as we find the above up quite far enough on the underlie. We shall put up a small rise that an early communication may be effected; also to allow the water which is now in the shaft to come in this direction, that it may be pumped to surface with the machinery at Brook shaft, instead of the present appliances. We hope to make the communication by Christmas or before. There is no particular change in the stopes in the back of the 80 since last reported. The lode in the adit level, west of old sump shaft, still maintains its size and character; a very promising lode.—Pickstone's Shaft: We calculated to have intersected the lode here by this time, and should have but for the ground being become a little harder. The above may be cut any day, and, immediately we do, you then be advised. The 12 in. lift of pumps are completed and working very satisfactorily. No doubt, on intersecting the lode, we shall draw the water from the 140. Should this be the case, we are now in position to deal with it.—Martin's Shaft: The ground here is very favourable for sinking, and the men are making very fair progress. The men can be distinctly heard in the rise, and we hope this will be communicated by the time stated.

SOUTH FRANCES.—O. Craze, Nov. 28: Since my last report we have had almost incessant rains, which have thrown so much water in the mine that we have been obliged to work on our engine and pitwork much faster than usual, and this has done some of the old main rods, rod-plates, and pumps, which we have now replaced with new. These stoppages have thrown in still more water, and so covered for the time our best tin ground, which is interfering with our returns of tin, however the engine and pitwork are now working fairly well, and we are pushing on in hope of draining the mine in the course of two or three weeks, when we shall be able to work on our best tin ground in the bottom levels, and considerably increase returns.

SOUTH TOLCARN.—T. Angove, S. Arthur, Nov. 30: The underground operations and values of the different points of this mine are much the same as last reported. In Taylor's workings in the north part of this shaft we have cleared up a "bottoms" below the adit level on the lode, which is worth at present 30¢ per fathom. The weather continues seriously to retard our surface operations.

TAMAR SILVER-LEAD.—R. Goldworthy, Nov. 30: There is no change in either of the bargains to call for any special remark since my report of last week. Saturday being setting and pay, after which you shall hear full report.

TANKERVILLE GREAT CONSOLS.—Arthur Waters and Son, Nov. 30: Tankerville mine is looking quite as well as when reported on last week, there being no change to notice in the direction of the lode, and, as far as the main points under development were worth together 8 tons of lead per fathom.—Pennerley: The 120, east of cross-cut, on Warm Water lode, is yielding good stones of lead ore, and looks like improving shortly. The 80, west of shaft, is in a lode 5 ft. wide, containing more calc-spar than of late, the present yield of ore being 2 tons per fm. The four stopes in this level, behind the end, are worth together 6½ tons of lead ore per fm. No change in any other point.—The shaftmen continue pushing on with the new winze or shaft below the 91, and other men are deepening the bottom of the 105, with a view of completing the link to the 115 as soon as possible, and we hope to see the water go down shortly, that we may be able to follow the rich lode seen along the bottom of the said level. The weather is now dry and frosty, and we should not be surprised to find this mine perfectly dry again in a day or two.—Bog Mine: The 175 is being cleared west to the junction, and east of that point, on the south lode, the men laying the rails as they go. The same remarks apply to the clearing of the 163. We hope to send down new working barrel to the 175 next week, and get everything ready for the sinking of the engine-shaft below the 175 next week. The lead and blende pitches are yielding ore in quantities, just as for some time past. Surface work going on favourably.

TREMBLO.—Edward Chegwinn, Nov. 29: In the adit level, driving east of Pinnock's shaft, we have not yet succeeded in cutting the main lode, which we lost some time since, but are daily expecting to do so. In the winze sinking below the adit level on Tremblo lode, the lode is 3½ ft. wide, worth for tin 14¢ per fathom. The new south lode, 10 fms. west of cross-course, driving south-west from Tremblo lode, is 2 ft. wide, worth for tin 15¢ per fathom. The stope in the back of this level, with the cross-cut driving south, and also with cutting pit, &c., at the 18 fm. level. The engineers are in a forward state with the erection of the 60 in. pumping-engine.

TREVARREN UNITED.—W. Hooper, J. Job, Nov. 27: Parka (St. Columb): Our shaftmen have been engaged during the past fortnight in driving south on Niel's lode at the 20, but the air being so bad we were obliged to suspend driving for a short time and put in a fresh waterfall; pleased to say this is completed and the air greatly improved. We shall now drive the end as fast as possible in order to open up more stopes for tributaries, as we find men anxious to work on tributaries faster than we can open up the ground. The end at present is worth 5½ 10s. per fathom. The north end at this level is worth 3½ 10s. per fathom, with every indication of improving.—South Level: Nos. 1, 3, 4, and 5 stopes are much the same as last reported, and No. 2 stope is worth 5½ 10s. per fathom.—North Level: No. 1 stope is worth 2½ 15s., and No. 2 3½ per fathom. At the 10 the south end at present is worth 2½ 10s. per fathom. Nos. 2 and 5 stopes are still maintaining their value as stated in last report.

WEST CARADON.—N. Richards, Nov. 29: A stope in the back of the 50 on Viole's lode will produce 1 ton of copper ore per fathom. Two stopes in the back of the 35, on this lode, have fallen off in value, now worth together 1½ ton of ore per fathom. Taylor's lode in the rise, in the back of this level, has a very promising appearance, and will yield about 1½ ton of copper ore per fathom. Gilpin's lode west of main cross-course, at this level, has much the same appearance as when reported on last, producing stones of ore. This lode in the adit level is slightly improved, and will now yield fully ½ ton of copper ore per fathom, and likely to further improve. A rise and two stopes in the back of this level will yield in the aggregate fully 4 tons of ore per fm. We have commenced clearing the adit on Mr. Daw's ground, and shall soon see the extent of chagane in the same. The lode in the adit driving west of shaft, in Western Gomanena, is 3½ ft. wide, a strong, masta looking lode, and cannot, in my opinion, at a reasonable depth, fail to produce large quantities of copper ore.

WEST CREBOR.—J. Andrews, Nov. 29: On Saturday last the engine-shaft was reset to sink below the 50, by nine men, at 13¢ per fathom. The lode in the shaft is 3 ft. wide, and worth 15¢ per fathom. The 50 west was set to drive by two men at 3½ 10s. per fathom. The lode in the end is 18 in. wide, yielding a little copper ore and munda, but nothing to value.

WEST DEVON GREAT CONSOLS.—George Rowe, Nov. 23: We are getting on fairly with the timber work in the whim and engine-shaft and main rods, and shall be in a position to fix the new standing lift with its connections in the course of a few days. There will be no change to report in the lode, while the men are engaged in fixing the new pitwork, &c., for deepening the mine.

WEST GOLDFIELD.—T. Hodge, F. Hodge, Nov. 18: The 80 south-east on the lode is improving as an advance, worth 4¢ per fathom. In 12 fathoms further driving we expect to enter some good ground, and go down in the level above. The 70 east on Bellingham's lode, produces low price tin-stone. The 80 west is worth 3½ per fathom. The winze below the 70 west is worth 7½ per fm.; we expect to communicate this with the 80 in a few days. The 60 west is in a strong tinny lode, worth 7¢ per fathom. There is no change in the stope worthy of remark. Cook's shaft is going down in a highly mineralised rock, and we have good hope that the lode will be found productive when reached (say) in another 6 ft. more sinking.

WEST VOR AND LEDES.—S. Harris, Nov. 30: The adit level, driving east of cross-cut on the Sozen lodes progressing very favourably. The lode is 4 ft. wide, all of which will produce 14 lbs. of tin to the ton, and also contains some good stones of copper, and very strong of munda—altogether a highly mineralized lode.

WEST WHEAL TOLGUS.—James Vignars, Nov. 30: Richards' Shaft: The lode in the 105, west of shaft, is 3 ft. wide, yielding 1 ton of copper ore per fathom, the ground is easier for driving. The lode in the rise at the back of the 105, west of shaft, is 4 ft. wide, producing 2½ tons of ore per fathom. The lode in No. 3 rise at the back of the 105, west of shaft, is 2 ft. wide, yielding good stones of ore, but not sufficient to value. In the 85, west of shaft, the lode

declared a dividend of 12, and a bonus of 17. per share, both payable on Dec. 23; the latter will be applied to payment of a call, payable same day, to create 20,000. additional working capital, which will much increase the future prosperity of the company. Cape of Good Hope Diamond, 1 to 1½; Central Jagersfontein, ¾ to 1½; Chile Gold, ¾ to 1; Cootacovil, ¾ to 1; Copiapo, ¾ to 1; Devala Moyar, ¾ to 1; Fortuna, ¾ to 1. Frontino and Bolivia, ¾ to 1; the September profit was 1600. General Mining, 5½ to 6. Henriett, ¾ to 1 prem.; a dividend of 2 per cent. was declared, payable to-day (Friday). All the shares have been allotted, and a quotation on the Stock Exchange is to be at once applied for, and will no doubt be granted. Indian Consolidated, 5-16 to 7-16; Indian Glenrock, ½ to ¾; Indian Phoenix, 15-16 to 1-16; Indian Trevelyan, 5-16 to 7-16; Kapanga, ¾ to 1.

La Plata, 1½ to 2½; the smelting statements for the last five weeks combined shows ores received 5288 tons, and ores smelted 4307 tons, the yield of which was 68,150 ozs. of silver and 422 tons of lead. The advices from the executive at Leadville are to the effect that the furnaces are doing their usual good work, and the receipts of ore continue to be large. The mine owned by the company is improving as developments progress, and its yield of ore which is sent to the smelting works is increasing. Linars, 3 to 4; Mason and Barry, 15½ to 16½; Mysore Gold, 5-16th to 7-16th; Mysore Reef, 1-16th to 3-16th. A meeting was held at the Cannon-street Hotel on Thursday, of which details will be given in next week's Journal. New Quebrada, 4½ to 5; ditto debentures, 97 to 102; Nouveau Monde, 5-16th to 7-16th; Panulillo, ¾ to 1; Rhodes Reef, ¾ to 1; Richmond, 6½ to 7½; Rio Tinto shares, 21 to 25; Ruby and Dunderberg, 1½ to 1¾; Scottish Australian, new, 1 to 1½; South East Wynaad, ¾ to 1½; St. John del Rey, 170 to 190; Tamracerry, ¾ to 1; Tharsis, 37½ to 38½; United Mexicans, 2½ to 3; Wentworth Gold, ¾ to 1; Wynaad Perseverance, ¾ to 1.

Birdseye, 1½ to 1¾; Brazilian, 1 to 1½; Colorado, 1½ to 2; Gold Hill, 1 to 1½; Organos Gold, 2½ to 3; Bratsberg, 1½ to 2; a general meeting is called for the 14th. We are informed that the mines continue to look exceedingly well, and that the different points are valued in the aggregate at about 5000. per fathom; still shares are flat. Yuba, par to ¾ prem. Michipicoten, ¾ to 1; Orita Gold, 1½ to 1¾; Victoria, 1 to 1½; Colombian, ¾ to 1; Corporation of South Australia, ¾ to 1½; California, 1 to 1½; Yollima, 7 to 9; the profit for the month of September, 5500.—the ore is getting richer.

The Market for Mine Shares on the Stock Exchange has been very inanimate—copper, tin, and lead continue to decline, and shares in mines producing these metals have naturally a corresponding tendency, whilst as to foreign mines there is nothing to create activity. The Cape Copper Company has declared a dividend of 17. per share and a bonus of 17. per share, both payable on Dec. 23, but against the latter a call of 17. per share has been made payable on Dec. 23, so that in fact the shareholders receive 17. per share in cash, and the company's working capital is permanently increased by 20,000. out of realised profits; this larger working capital was much required, and will place the company in a strong and satisfactory financial position. In connection with home mines the chief feature of interest is the declaration of a dividend of 8s. per share at the West Kitty meeting, but home mines generally are not looking encouraging.

Our usual telegram from Cornwall this evening says:—During the past week the Cornish mine share market has been dull, and will probably remain so while the tin market is so unsettled. The Dutch sale of Banca tin yesterday averaged 997. 10s. in Holland. The Australian shipments are telegraphed as 1100 tons for November. At West Kitty a dividend of 8s. per share was declared, the agent's report being very favourable. Wheal Prussia's loss was 22500., a call of 9s. being made, which will wipe off deficit. At West Frances yesterday a loss of 2114. was reported, a call of 25s. being made. At North Levant to-day a profit of 667. was reported, reducing the adverse balance to 1017. The agents expect daily to cut the blue lode. Negotiations for the extension of the sett postponed, owing to the absence of one lord. Carn Brea, 8½ to 9; Cook's Kitchen, 34 to 35; Dolcoaths, 68 to 69; East Pool, 50 to 50½; Killifreth, 3 to 3½; New Cook's Kitchen, 6½ to 7; Pedan-an-Drea, 2 to 2½; South Frances, 8½ to 9; Tincroft, 6 to 6½; West Basset, 6 to 6½; West Peavor, 8 to 9; Agar, 15½ to 16½; Wheal Basset, 8½ to 9; West Kitty, 12½ to 13. The share market is dull.

In Electric Light companies' shares there has been but little doing except in Brush Parents, the impending call in which has created such an anxiety to sell that the transactions have been very numerous. In prices the movement has been in every case downward. It is announced that the directors of the Anglo-American Brush Electric Light Corporation have placed the direction of the Lane Fox Incandescent Lamp Department in the hands of Mr. St. George Lane Fox.

In Diamond Mining Companies shares there has been a complete lull. Two meetings are reported in to-day's Journal—that of the Kimberley North Block, which has just got fairly to work, and is showing some profit, and that of the Jagersfontein Company, which is aground for working capital. It appears that whilst 104,000. was paid for the property, which was almost unworkable, only 11,000. was retained for working capital. The vendors magnanimously (?) agree to disgorge 10,000., which, however, will be insufficient to put the concern in paying condition, the work before the company being much like that of ants attempting to empty a large wash-basin of wet sand to obtain food from the extreme bottom. Mr. Thomas Collingwood Kitto has been appointed the company's consulting engineer in London, and it is fully hoped that this will create confidence in the soundness of the undertaking. He is certainly quite capable for the appointment, as he can claim that his mining experience is almost unsurpassed. The great drawback to all South African Diamond Companies, and that for which there is practically no remedy, whatever may be said to the contrary, is that whilst the average value of diamonds has fallen from 34. to 17. 19s. per carat, in round numbers the value of labour has increased fourfold—men who formerly received 10s. per day now getting 27. per day. A meeting in connection with these difficulties is referred to in another column.

Devon Great Consols, 4½ to 5; the 137 east at Wheal Emma has been driven 5 fms. during the past week, and is worth 2 tons of copper ore and 3 tons of mastic per fathom. The lode in the 190, west of Railway shaft, is very promising. The top plat at the 100 at Watson's has been completed, and good progress is being made in driving the 20, east of the western shaft.

Devon Great United, ¾ to 1; good progress is being made with the rock drills in driving the cross-cuts at the 60 on the middle lode, and the machinery is working well.

Drakewalls, ¾ to 1; good progress is being made by the rock drills in driving west of engine-shaft. The south branches are producing some good tin stuff, and the various points of operation are showing well for ore.

East Wheal Rose, 1½ to 2; there has been great excitement in these shares throughout the week on the Stock Exchange. It is stated that one dealer alone dealt in over 10,000 shares. Kit Hill Consols, ¾ to 1; the top plat at the 75 fm. level, in the north engine-shaft, has been completed, and the men are driving east on the lode, which is 4 ft. wide. In the 62 fm. level, east of north engine-shaft, the rock-drill has been started, and has made good progress during the week. The main tunnel has been extended 2 fms. Mona Consols, 1 to 1½; it is stated that, more miners being employed, greater energy is being shown in development. The new shaft has already been commenced, and a promising lode met with in sinking. A considerable quantity of copper ore of good quality is now at surface.

Mounts Bay, 13-16 to 15-16; these shares are said to continue a favourite investment, as the feeling is that the prospects of the mine warrant a much higher figure. Old Shepherds are quoted 1-1-16 to 1-3-16, and it is added that just at the close of the market a demand has set in for these mines in sympathy with the firmness of East Wheal Rose. South Caradon, 30 to 35; the sale of ore (500 tons) realised 2460. South Devon United, ¾ to 1; as will be seen by the manager's report, they expect daily to intersect the lode in Pickstone's shaft, the ground of which has become a little harder. The lode in the 110 fathom level, east of Brook's shaft, is 3 ft. wide, producing good ore. The various stopes in the back of this level are worth 357. per fathom. Good progress is being made in sinking Martin's shaft.

Tresavean, 1 to 1½; steady buying is reported to be going on, the tendency being decidedly to buy on any concession in price. West Godolphin, 1 to 1½; the sinking of Cook's shaft to intersect the lode recently discovered is proceeding satisfactorily. The rock looks more encouraging every foot sunk. It is calculated that in 6 ft. the lode will be intersected. The assays of ore sampled on Friday last gives—No. 1, 2½ per cent. of fine copper; No. 2, 11½ per cent.

Cape Copper, 5½ to 5½; at the directors' meeting on Thursday a dividend of 20s. per share, free of income tax, was declared payable on Dec. 23 to the shareholders on the books on Dec. 13. The shareholders are aware that the business of the company has assumed proportions far in excess of those originally anticipated, and that in consequence of such extension a much larger working capital has been required than has been at the disposal of the directors, entailing a large amount of floating indebtedness, which it is very desirable should be reduced. It is announced that the stock of 1881 ore unsold at the date of closing the accounts of that year has realised nearly 20,000. more than the estimate placed upon it at that date. This affords the directors a favourable opportunity of carrying out their desire to reduce the amount of indebtedness mentioned, and of permanently increasing the working capital of the company. With those objects, they have decided to make a call of 20s. per share, and at the same time to pay a bonus of a like amount, free of income tax, which the profit on the 1881 stocks enables them to do. Notice is therefore given that a call of 20s. per share is now made, and that a bonus of 20s. per share, free of income tax, is declared both payable Dec. 23, and by shareholders on the books on Dec. 13.

Richmond, 6½ to 7½; the week's run was \$12,000 with No. 4 furnace, from 262 tons of ore, and the refinery produced \$12,000 worth of doré bars. The superintendent's weekly report (Nov. 6) states that the 300 south-east drift from south-west drift has been extended 6 ft. Total 159 ft. In very favourable hard limestone. The 300 south-west drift from station has been extended 5 ft. Total 213 ft. In very hard favourable limestone. The 300 north-east drift from south-east drift has been run 9 ft. on fissure in limestone; indications favourable. The 700 north-east drift from main west drift has been run 2 ft. Total 48 ft. In favourable limestone. The 700 main west drift from station has been extended 15 ft. Total 616 ft. In favourable limestone. The 800 winze from above has been sunk 28 ft. Total 50 ft. In low grade ore and ledge matter. The 800 north-west drift from above has been extended 23 ft. Total 137 ft. In favourable limestone. The 900 north drift from west drift has been extended 18 ft. Total 294 ft. In favourable limestone. The 900 east drift from north drift from west drift has been extended 28 ft. Total 268 ft. In favourable limestone. The 900 north-west drift from north-east drift from east drift from station has been run 16 ft. Total 93 ft. In favourable limestone. The 900 rise from north-east drift has been raised 15 ft. In limestone. The 1050 north-west drift from station has been extended 29 ft. Total 162 ft. In favourable limestone.

Sentein are quoted at 1 to 1½; a fresh discovery is reported in the deeper workings which considerably enhances the value of this property. The amount of ore broken at the mine for the first division of November was 450 tons and 660 tons sent to the dressing establishment, notwithstanding the inclemency of the weather in the Pyrenees.

Ruby and Dunderberg, 1½ to 1¾; new shares, ¾ to ¾ premium. At the Dunderberg mine the rise from the 300 ft. level had been advanced 12 ft., making the total length completed 126 ft. The shipments of ore for the week show a falling off amounting to 13 tons only from the two mines.

Henriett, ¾ to ¾ prem.; a telegram from the manager says that 17544. has been received for 829 tons of low grade ore and iron. The directors have declared a dividend payable to-day (Friday). The whole of the share capital has been allotted, and application will forthwith be made for an official quotation on the Stock Exchange. A telegram from Mr. Hendrick, manager of the London Mine in the Leadville district, who was deputed to measure the reserves, says:—"Estimate 40,000 to 45,000 tons in ore in reserve; difficult to measure closely. Prospective value of mine great; ore in all headings improving rapidly in quantity and quality." The advices from the manager are favourable:—"At the time of Mr. Hendrick's visit prices were not so good as now, and only certain grades of ore could be shipped. At the Harker shaft he is stopping between the 8th, 9th, 10th, and 11th levels; between the 10th and 11th levels the ore is 9 ft. thick. He has no hesitation in saying that the ore body developed since Mr. Hendrick's inspection is more than double what he last March; the vein is continuous, and seems to be less irregular as the hill is penetrated. He has completed the new shaft and engine-house over shaft No. 3 (previously designated central shaft), now being deepened to intersect the main incline. The present working force is 65 men all told." The manager reports that No. 3 shaft will reach the mineral deposit on Jan. 2, and shortly after that date the quantity of ore hoisted will be proportionately increased. The board fully approves of the course pursued by Mr. Harker in taking advantage of the high prices now obtainable for low grade ore, none of which Mr. Hendrick states was included in his valuation of reserves.

Californian Gold, 1 to 1½; the usual weekly telegram from the mine states that the mill run was 290 tons; net proceeds, 5800.; smelting ore sales, 1400. Kobinor and Donaldson, 1½ to 1¾; satisfactory reports have again come in from the mine and will be found in the usual column.

Frontino and Bolivia, 2½ to 2¾; during September 2109 tons from general mines produced 2541 ozs., and the gold bought produced 338 ozs.—2882 ozs.; the estimated value of the gold, including exchange, was 7166. 4s., leaving profit, 1600. 14s. In addition to the cost of 4704. 4s., 7200. 15s. has been spent out of the new capital recently provided and has been debited to the capital account. The agent reports that the mines are making good progress, that the pumps in the Silencio will be at work by the end of October, that the Tigrito Mine has greatly improved, that at the Suada Mine the new stamps would be ready to work by Oct. 25 if the machinery for lifting the machinery from the appalling floors to the level of the stamps could be arranged. At Antioquia the loss was 761. 13s., and 371. spent on capital account.

In Lead Mine Shares there has been very little doing; lead continues depressed, and shares are low in sympathy. Roman Gravel, 9 to 9½; the several points of operation are of same value as at last report, and the mine continues to yield fine stones of lead ore. A sale of 250 tons of ore took place Tuesday last.

Taukerville Great Consols, 5s. 6d. to 7s. 6d.; there is no change at the mines, the various lodes looking as well as at last report, the main points under development at Taukerville Mine being worth together 6¼ tons of lead ore per fathom.

Bwlch, 1 to 1½; a special report from this mine has been received. The 170 west still continues to improve, and the agent appears confident of further discoveries.

West Lisburne, 1 to 1½; the recent heavy rains have interfered with the cross-cut from the trial shaft to intersect the new lode in the rock; but good news is expected shortly.

Leadhills, 3¼ to 3½; this mine is looking well, and producing rich stones of lead ore.

The Dingley Dell Company have issued a circular to the shareholders explaining the arrangement (fully referred to in last week's Journal) with the Indian Trevelyan Company.

The Devala Central Company, says the South Indian Observer of Nov. 4, is, I believe, now engaged in the erection of its battery. Mr. Harman and Capt. Rowe, I am informed, are quite satisfied with the prospects of this mine. It must be admitted that the affairs of this company, and its works generally, have been carried out with economy, prudence, and ability. There has been no unnecessary outlay, and only such works as were considered absolutely indispensable, were actually carried out here.

The Corporation of South Australian Copper Mines received (Nov. 30) a telegram from the colonial committee:—"Mount Rose: Are now certain ore body is of large extent—1000. a fathom—nearly all first-class ore—public securing adjacent country."

The earnings of the New York, Texas, and Mexican Railway, from Rosenberg to Victoria, a distance of 19 miles, were \$12,488 for the month ending Nov. 8. The earnings for the previous month were \$12,281.

Messrs. J. S. Morgan and Co. notify the holders of the Six per Cent. Sterling Bonds, series A, of the United States Mortgage Company, that it is their intention to pay off the whole of that issue, amounting to 1,000,000., on March 1 next, with accrued interest to that date, and to issue at par of Sterling Bonds to the amount of 400,000., bearing interest at the rate of 5 per cent. per annum, preference being given to holders of the present series. The Sarawak Pioneer Gold Mining Company (Limited), of Sarawak (Dutch Guiana), have sold to Messrs. Fixley and Abell 253 ozs. of gold, including two nuggets of 15 ozs. and 8 ozs. respectively, being the result of the working of the mine for September and October.

GREAT HOLWAY.—The Eyton shaft will be ready for great operations during next week, and returns of lead and blende will increase. All other points continue to look well and splendid returns made.

NEW TRUMPET CONSOLS.—The lode in Trenethick shaft is improving, and valuable stopping ground is being opened up. The report is worthy perusal.

EAST TREGEEMBO.—A report of a meeting of the syndicate working this mine will be read with interest, the discoveries already made

being such as will, it is thought, place the mine in a prominent position in the coming year.

WEST KITTY.—The meeting of shareholders is reported in another column. The importance of a mine of this description entering the Dividend List needs no comment. The shareholders can only be congratulated upon their good fortune.

TREVAUNANCE.—At the meeting on Wednesday (Mr. John B. Reynolds in the chair), the proceedings were unanimous and highly satisfactory, all the shareholders present agreeing that a future of great promise was before the mine. There are special points of interest here which are seldom met with, and judging from the statements made there can be no doubt that there is ample evidence for considerable encouragement.

MOUNTS BAY CONSOLS.—Reports to hand from this mine appear to be of great importance. At Sydney Cove the steam stamps will be ready to start within a few days. A large quantity of lodestuff, sufficient to keep the stamps fully employed for a considerable time, is on the bank, while the numerous lodes discovered are opened up, and any quantity necessary for rapid and continuous working can be broken as required. Large and regular returns are now regarded as assured beyond doubt. The tribute pitches at Trebarvah Mine are of equal, if not greater, value than reported last week. Every indication points to the lode being almost reached, and from all appearances when cut it is likely to double the value of the mine.

EAST WHEAL ROSE.—The remark made last week—"the latest from this mine is, probably, the most important event reported from Cornwall for many years"—appears to be the general opinion of investors, for it said that many thousands of shares have changed hands on the Stock Exchange at from 1½ to 1¾. Middleton's lode has improved since first cut, and it is expected a considerable improvement may be looked for any day. This lode in one year produced 65,000. worth of lead, and 53,280 ozs. of silver, the largest amount, it is believed, got from any lead mine in Cornwall in modern times. This result was from the bottom of the mine, proving that the lode increases in value with every fathom sunk.

OLD SHEPHERDS.—From reports just received it would appear the important discovery of ore at the 26 fm. level is gone down whole to the bottom of the mine (120 fms.) for it has been cut at the 34, and is nearly reached at the 44 fm. level. This is regarded as a discovery that can be scarcely over-estimated and likely to produce some scores of thousands of pounds. The engine is draining the mine rapidly, and will, it is expected, shortly reach the 70 fm. level, where the principal deposits of mineral exist. It is generally considered the certainty of success is now beyond question, and it is believed the high estimate put upon the probable returns from this mine will be fully realised.

SORTIDGE.—A good tin-dresser has been secured, and the agent reports that they will soon begin to make continuous returns of tin.

DEVON FRIENDSHIP.—We understand that the general meeting will be held next month, by which time the new dressing machinery will be at work, and considerably increased returns will then begin. The erection of the new winding machine is already completed. The agents estimate the ore ground laid open and available for stopping at over 6000 fms. (at 7. per fm.), and worth at least 42,000.

WHEAL COATES.—It is reported that this mine has somewhat improved, a new lode has been discovered in the cross-cut from the 70 worth 107. per fathom, and there are other points of interest to come off which should greatly encourage the shareholders.

PERRAN SILVER-LEAD.—The agents' report for this week is regarded as particularly encouraging. The prospects in the 60 end south continue to improve as they advance, and even the branch of hard spar met with running north-east and south-west exercised no unfavourable influence on the lode, as had been anticipated; they have seen no richer work than that they are drawing from here. They have completed air-compressor and boiler-house, and are making preparations to take out the old boiler.

TRESAVEAN.—From information to hand the various points throughout the mine are rapidly improving. Tributaries are competing with each other for new pitches, which is the strongest proof obtainable of this increase. It is stated that the mine is drained nearly to the 60, and that if it be not forked 1 fm. deeper there is sufficient ore ground above to pay large profits for 20 years, and as it is the intention to drain it to the bottom the amount of reserves laid open should be sufficient to place it in the foremost rank of Cornish mines.

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ASHFORTH UNITED.—As reports have ceased to be given in the *Mining Journal* it is a mystery whether the company is in existence or not. Can any reader give particulars.—SHAREHOLDER: *Newcastle-on-Tyne*.

Received.—"An Unfortunate Investor"—"D. P. D." (Barnstaple).—"R. J. B."—"Annabenshi"—"Shareholder" (Devon Great Consols).—"A. J." (Coatbridge).—"E. U. M."—"G. H. P."—"Shareholder" (Wheat Crebber).—"M. E." (Leeds).—"Shareholder" (Thincroft).—"W. G. B."—"Old Reader" (Wexford).—"E. C. L."—"G. B."—"M. J. D."

THE MINING JOURNAL,*Railway and Commercial Gazette.*

LONDON, DECEMBER 2, 1882.

THE ECONOMIC COMBUSTION OF COAL.

Owing to the present high price of coal, and the probability of its still further increasing, from the proposed limitation of the production, attention is now being directed to the best means for obtaining from it a much larger amount of heating power than we have hitherto received owing to our defective arrangements. At the present time it is stated by the highest authorities that our best constructed blast-furnaces do not utilise more than 36 per cent. of the theoretical heating power of the coal, whilst the house grates in general use only reach from 3½ to 4 per cent. The principal cause of this enormous loss lies in the impossibility of converting the crude fuel into gas in the ordinary grate or stoves, which conversion is preliminary to combustion, and the subsequent burning of the gases evolved in the proper quantum of air. Seeing that the combustion of carbon involves the making of gas, it is admitted that the gasification of the fuel could be far more advantageously accomplished at large central works, and thence distributed to consumers by pipes. But there appears to be certain drawbacks to this system which cannot be easily overcome so far as regards the supplying of ordinary dwellings. With respect to the smelting of iron and steel there has been a marked reduction in the quantity of fuel used for these purposes than was the case even two or three years ago. This has been more especially the case in the making of steel both at home and abroad. Last year the total quantity of Bessemer and open-hearth steel made in the United Kingdom was 1,779,719 tons. To have produced this by the old crucible process, assuming the moderate expenditure of 4 tons of coal per ton of steel, would have required a consumption of 7,118,876 tons of fuel; but the actual consumption, assuming an average of 10 cwt. of coal per ton of ingots, over the whole has only been 889,000 tons, so that there has been an economy as compared with the old process of 6,229,876 tons, whilst there is no doubt that much of the expenditure of fuel now incurred in the working of Bessemer plant might be still further economised. The late Mr.

HOLLEY, the eminent American metallurgical specialist, in speaking of the American Bessemer works, said that the cost of the coal required to drive the machinery of an average Bessemer plant averaged about \$1½ per ton of ingots, but with better steam-engines he calculated that a third of this cost could easily be saved, and such a saving would represent an economy of nearly \$300,000 a-year on the present output. The Troy steel rail mill engine, we are told, with a 54-in. cylinder, was superseded by a 44-in. Corliss engine, and an economy of \$25,000 a-year in fuel was the result. It is, therefore, evident that we have not yet reached the greatest amount of economy as regards fuel in the production of steel, but there is every reason to believe that considerable progress will be made in that direction in the event of the price of coal going up much higher than it now is.

With respect to the combustion of coal in ordinary stoves and grates, Dr. TEALE, of Leeds, has made a discovery which promises to be of great value to all householders, and which, if carried out would lead to a decrease of 9,000,000 tons of coal annually in this country. It has the great advantage of being simple, inexpensive, and easily applied. In lecturing on the subject a few days ago Dr. TEALE said the principle of the discovery was that the slow combustion of coal in house fires depended upon two conditions in combination, one of these being that no current of air should pass through the grate beneath the fire, and the other that the space or chamber under the fire should be kept hot by being shut out from the outer air. This was best accomplished by means of a shield resting on the hearth and rising as high as the bottom bar of the grate, a system which was applicable to every house, kitchen, and cottage fire in the kingdom which had not already been supplied with a good slow combustion range. By the adoption of the system there would be a saving of one-fourth at least in the quantity of coal consumed, would lessen the amount of soot and smoke, and would burn all the cinders to ash, diminishing thereby the ash-pit refuse by at least two-thirds in bulk. In fact there should be no cinders left unburnt, nothing but fine ash, and that small in quantity. By the adoption of the shield there was entire exclusion of the cold current of air beneath the grate, allowing the bottom of the fire to be rapidly heated, and to send up the distilled gases at a higher temperature, and causing it, therefore, to burst more readily into flame. When the fire was mended the raw coal was put into a much hotter bed, although the fire was low, and did not chill in the same degree the remnant of the fire, but rapidly burst into flames. By this means it was possible to burn good coal completely to ash or powder. The shield, or economiser, brought to light two important facts:—1. That in the ordinary grates the cinders as they reached the iron bottom of the fire cooled down below this combustion point, and with the ash choked the grate and in time put out the fire; hence the necessity when the fire was low for poking out the dead obstructive cinders in order to restore the draught without which such a fire would not burn. The second fact was that if the bottom of the fire was kept hot, as it was by the shield or economiser the cinders melted away, remaining at the combustion point when on the iron grate until reduced to fine ash; this fine ash dropped through narrow slits, its descent being constantly aided by the cinders as they dropped through the fire. In this way such fires constantly cleared themselves, and did not need the cleansing aid of the poker. Professor RUCKER, of the Yorkshire College of Science, Mr. ARTHUR ARNOLD, and other scientific gentlemen, bore testimony to the value of the system brought forward by Dr. TEALE. The time certainly appears to be most opportune for the carrying out of such an economical system of burning coal, so that the increased value put upon fuel and the proposal to limit its production by miners, so as to still further increase its price, may turn out after all to be a great public good, and in the long run anything but advantageous to the miners.

THE ROYAL COMMISSION ON ACCIDENTS IN MINES, AND MINING EXPLOSIONS.

It is now nearly four years since the Royal Commission on Mining was appointed, and from it great things were expected in the lessening of fatalities from explosions, as well as from other causes, in mines. Yet up to the present time no single idea has been given that has tended in any way to decrease the fatalities caused by accumulations of gas or falls of roof or sides. Indeed, explosions have gone on much as usual, as shown by those that have taken place during the year, the latest being that at Clay Cross. One would have thought that the Commission, with all the evidence it has taken during four years, would have been able ere this to have shown that their appointment was to be of some practical benefit to the mining population of the country, and was not intended as a mere pleasure excursion to the mining districts of England, Scotland, and Wales at the public expense, and that for an indefinite period. Yet, as we have already stated, the mineowners and miners have been awaiting with no small interest the report of the members of the Royal Commission, in the hope that it would instruct them in some more effectual manner than they are at present acquainted with in respect to gases, how they can be detected in certain quantities before they become explosive, and the best means for rendering them innocuous. It is true that a preliminary report, consisting principally of evidence taken in various districts, has been given; but this has not advanced our knowledge of mining safeguards beyond what we possessed before the Commission was appointed, so that it really appears that our mining engineers previous to 1880, at least, had given us all the information that it is even now possible to impart with respect to the safe working of mines. Men like the late NICHOLAS WOOD, FORSTER, POTTER, and WOODHOUSE were professional leviathans as mining engineers, who left comparatively little for those who followed them to discover, and this has been shown by the proceedings of the Royal Commission so far. That body, indeed, is still on circuit, this week, we understand, being on a tour in South Wales, for the purpose of seeing some experiments with new safety-lamps. But whilst the Commission is making voyages of discovery new inventions are being brought out in the very way that it was appointed to anticipate. This will be evident when we come to look at the instructions given just before the appointment of the Commission, which stated "that many destructive accidents have happened in mines from explosions and other causes, and that with a view to the prevention of such accidents and the mitigation of their consequences, it is important to ascertain whether the scientific knowledge at present possessed of the phenomena relating to mines and operations therein can contribute any further precautions and appliances suitable for practical adoption; and whereas we have deemed it expedient that a Commission should forthwith issue for the purpose of enquiring and reporting whether, with respect to the influences of fluctuations of atmospheric pressure upon the issue of fire-damp from the coal; to the adoption and efficient application of trustworthy indicators of the pressure of fire-damp; and generally to modes of the observation of air in mines; to improved methods of ventilation and illumination; the employment of explosive agents in mines, and mining operations," &c.

This shows the scope the enquiry was given and what was expected from it. Yet since its appointment hundreds of lives have been lost by explosions, and some thousands from that and other causes as well, and we are not aware that during the nearly four years of its existence has the Commission been the means of saving a single life. Yet it is still at work, but for what useful purpose no one can divine. A good deal of time has undoubtedly been given to the explosive character of coal dust; but that was fully described in the *Mining Journal* long before the Commission was appointed, and Prof. ABEL has not been able to say more with respect to it than had previously appeared in these columns. It is just the same with respect to gunpowder in mines, which we have frequently shown to be a constant source of danger. At Clay Cross, it appears, gunpowder was used as it was at nearly every mine where explosions have taken place during the present year. On this point a great deal of evidence appears to have been taken, an overwhelming majority of the witnesses, we are told, asserting that it is practically impossible as a rule to work mines without powder. The Commissioners do not appear to have given any definite opinion upon this most important matter. Yet there can be no doubt that the doing away with powder in mining

districts has saved hundreds of lives. This has been more especially the case in the southern portion of the West Riding of Yorkshire, where the mines are the most fiery in the kingdom; but now, owing to blasting being almost unknown, there has not been two deaths during the last two years, yet on one occasion 189 were killed at one swoop by it, and 360 by another.

The Commissioners do not appear to have thought much of the various substitutes for powder, such as tamping, lime, hydraulic wedges, and compressed air, for they state that "in the meanwhile it appears to us very desirous to make trials of such methods of falling or bringing down the coal as may do away with the danger caused by sparks and flames, and with this view a series of experiments already commenced will be continued in different localities." These experiments, we believe, have been carried on for some months past, so that whilst the Commissioners have been experimenting several explosions have taken place, including Trimdon Grange, Tudhoe, Stanley, and Clay Cross, at all of which the coal was brought down by powder. Surely with these facts so prominently brought under the notice of the public there should be no great difficulty as to deciding whether powder was an element in mining that could be dispensed with, seeing that it has been the means of killing thousands of miners, and will be so again as long as it is tolerated in mines that are known to give off a good deal of gas. But we should certainly have thought that when explosions are mentioned in the papers so frequently as they have been, with loss of life, that the Commissioners, who have been nearly four years occupied in endeavouring to find some means, if not for doing away with them, at least lessening their force, would have something to say about them, something to suggest for their prevention. But such has not been the case. The Commissioners go from place to place making experiments and taking evidence, and contemporaneous with their proceedings explosions take place, and hundreds of lives are lost. Just now they are paying a good deal of attention to safety-lamps of the ordinary type, and whilst they are doing so considerable progress is being made in the perfecting of an electrical lamp. Mr. SWAN, of Newcastle, has brought out an electrical miners' lamp, which gives every expectation of being made perfect. With respect to it Mr. SWAN says—"There are special cases where store cells may with advantage be carried to a distance to be charged, and one such instance is that of coal mines, where it might be convenient to employ small store cells in portable cases, and to send these to a safe and central part of the pit, where a dynamo machine might be fixed for charging. The store cells might be carried into the mine on trucks, with the lamps attached to them, or if that did not fall in with the working arrangements of the pit, each man might carry his lamp and battery, and on arriving at his work he could place the box of cells in a convenient position, either with the lamp attached to it, or the lamp might be hung up in the situation most advantageous for the miner to work by." It will be seen that whilst our Commissioners are experimenting with oil lamps the latter are likely to be replaced by the electric light before their report is given in, whilst they have done nothing whatever to lessen the number of explosions, so that one is at a loss to discover what benefit they have been to the miner during the last four years.

LUMINOUS PAINT FOR MINES.

Much has been said with respect to luminous paint for decorating and fancy purposes as well as for its amusing properties, but it appears that it can be made to do good work in our mines by giving a light out of the darkness which prevails in them above that which even a safety-lamp sheds. It has been tried already in connection with mining operations, and the results have been so far satisfactory that it is likely to receive more attention from our mineowners who try it. The principle of the paint is said to be sulphide of lime prepared in a peculiar manner, the colour in the first instance being of a yellowish cast. In the second, when the paint is put on the two sides of a wall, the colour is that of a rich purple, and this is diffused to the material that may be placed near to it, as well as to the faces of persons in its vicinity. In a dark room it shows clearly the persons that are in it, and lighted it up to that extent that ordinary working operations could be carried on by it. The colour changes at times from a purple to a white, and so remains for several hours. In a mine where a light or lamp would be dangerous, by coating a sheet of gelatine with the paint it could be taken, and by it the places might be well and thoroughly examined and any defect found out and remedied by the men, who would otherwise be unable to see it. Where there was an outburst of gas, for instance, the paint could be used with the greatest advantage where a lamp would be attended with the greatest danger. The light given by the paint is sufficiently luminous to allow of the examination of comparatively small objects, such as gas meters, and leakages in pipes, and by it walls for the prevention of the spread of fire in a mine could be erected. It has been successfully applied in railway and other tunnels where there were no lights, and no doubt will be in all dark places where a moderate amount of light is a desideratum. Heat it appears intensifies the light, whilst on the other hand ice would altogether destroy the effect; but the paint, if spread even on a sheet of cardboard or paper and taken into a dark room or place of any kind, will glow with similar luminosity as sulphur from a match when rubbed between the hands. The mode of producing ordinary sulphide of lime is well known, but the process by which it is made to give such an amount of luminous power is known only to those who have recently brought it out on a large scale and who have been able to adapt it to many purposes, amongst which may now be mentioned mining.

THE SOUTH WALES COAL FIELD AND THE ENSUING PARLIAMENTARY CAMPAIGN.

Large and rapidly increasing as is the output of coal from the various districts of South Wales, if we may judge of the number and importance of the notices to Parliament during the next Parliamentary session, the aggregate will be very largely increased within a few years, and the exports of coal from several of the ports sensibly augmented. It will be remembered that the Rhondda and Swansea Bay Company obtained their Parliamentary powers last year, and in a few weeks the works will be in vigorous prosecution, making a new line from the Rhondda coal valley to the ports of Neath, Port Talbot, Britonferry, and Swansea, breaking up the monopoly which the Taff Vale Railway Company at present possesses of the extensive mineral district of the Rhondda and Afan valleys. It would be idle, however, to attempt to disguise the fact that this scheme, important as it unquestionably is, will not be complete until direct and unbroken access with the port of Swansea is obtained. Last year the determined opposition of the Neath, Port Talbot, and other shippers succeeded in preventing the promoters of the Rhondda Bill from getting the necessary Parliamentary sanction for crossing the Neath river, and the line, therefore, stops short some eight or ten miles of its intended terminus. The directors have, however, now given the necessary notices for obtaining Parliamentary sanction for the completion of their scheme, either by crossing the Neath river by less objectionable means, or possibly by a tunnel. At the last Parliamentary session Sir Hussey Vivian, M.P., expressed his regret that the committee had thrown out the bill for the crossing of the Neath river, stating that, had he been called as a witness he believed he would have convinced them that no impediment whatever would be occasioned to the trade, whilst it would be a great advantage to the immense mineral trams coming down from the Rhondda district. It is to be earnestly hoped that Sir Hussey will give the bill his support when it again comes before the Parliamentary committee next session. The Great Western Railway Company also, during the last session, obtained powers for the making of one or two short connecting links between various sections of their main lines, which, when completed, will largely develop several important mineral districts, and rapidly expedite the transit of coal to the various shipping ports. The West of England and South Wales Company give notice of application to Parliament next session for power to connect a competitive line between London and South Wales and the West of England. This is a revival of the scheme known as "the South Wales and Severn Bridge Railway" which was withdrawn last session, but now comes forward with very consider-

able local influence and support, and which, if sanctioned, will not only lessen the distance between South Wales and the Metropolis by between 50 and 60 miles, but will open up many important coal fields, and accommodate many extensive manufacturing works.

The Great Western Company propose one or two important lines in Glamorganshire, which will run through large mineral tracks and open up important districts. They propose constructing a line commencing at Britonferry by a junction with the company's South Wales Railway, and terminating by a junction with the company's Swansea and Neath Railway in Cadoxton, juxta Neath; also a new line commencing in Neath by a junction with the company's Swansea and Neath Railway. The Great Western Railway Company also propose to construct a dock at the mouth of the Ogmore, which could be easily placed in direct communication with the collieries to the west of Cardiff, and which now have no direct port of shipment. The Cardiff freighters are applying for powers to construct a dock at Barry, which will occupy the whole of the water area between Barry Island and the mainland, and will have a graving dock, gridiron, &c., attached. A railway passing from Barry to the west of the Garth to Treforest, and thence up the Rhondda Valley, would connect the whole of that extensive coal field with the proposed new docks. Branches will connect it with the old Rhymney Railway at Barry, and one connecting it with the Great Western line. In the eastern part of the South Wales district, the monopoly which Newport has hitherto enjoyed of shipping the coals from the Monmouthshire district is threatened by a proposed line from Risca, and from other parts of the Monmouthshire coal field to Cardiff, connecting it with Lord Bute's proposed new dock. It will thus be seen that several railway companies propose fighting hard for access to the practically inexhaustible coal fields of South Wales, well knowing that the mineral traffic from an important district is often the "back-bone" of a railway, earning dividends far in excess of the most favoured passenger lines. Several of these projected lines are urgently required to open up important maiden districts and afford the necessary sea access, whilst others would act as feelers of bituminous coals, increasingly demanded in the various metal works of the district. The prospects of South Wales, therefore, appear once more bright and cheery, and we hope and believe that the district is now recovering from the severe depression which has so long characterised its great staple industries.

SACRIFICE OF SHAREHOLDERS IN LIQUIDATION.

It is an acknowledged commercial maxim that the only men of business who make fortunes are those who are able to keep their temper and their judgment when they make a loss, to recognise losses as inevitable in the race for profits, and to let nothing induce them to throw away good money after bad. In commerce there is quite as much necessity to avoid buying "a pig in a poke," as in sharedealing; and the merchant requires to be quite as much on his guard in purchasing from the middleman representing the producer or manufacturer as does the capitalist in buying from the promoter of public companies. But there is this difference between the merchant and the speculating capitalist—the former deals only in goods he understands; that is to say, the corn merchant does not attempt to deal in Manchester goods, and it would indeed be a clever traveller who could induce even one out of the first three Manchester warehousemen in the City, upon whom he might call to buy a cargo of corn or a shipload of oranges; but the latter would scorn to think whether he understands the business carried on by the company whose shares he is offered, relies upon his ignorance to guide him, and then cries loudly against joint-stock enterprise generally and promoters in particular, because he has himself added one more link to the evidence that "fools and their money are soon parted," unless indeed, from his want of simplicity entitling him to rank with people of that class, he be open to the charge that he cared nothing for the honesty of the enterprise, and is disappointed because he could find no one more verdant than himself to buy his shares, and leave him a profit.

Speculating capitalists have at least the same protection as ordinary purchasers, and cannot plead ignorance of the fact that vendors are as unlikely to sell a property which they can profitably develop themselves as is the tradesman to sell his goods "under cost price." In both these cases the purchaser accepts a commercial improbability, and with it the attendant risks. In the case of the Cambrian Mining Company the purchase-money was fixed at 70,000*l.*, and as between those who purchased on the faith of the prospectus and the vendor the price at which the vendor purchased can make no possible difference. The price was demanded, and the purchasers agreed to pay it. And the most remarkable feature in the case is that the liquidator has done much to prove that the Cambrian property was really worth 70,000*l.* when it was sold to the company, and that the opposition of the discontented shareholders which led to the placing of the concern in liquidation was insane and suicidal—that the property would have yielded a good commercial interest. The vendor to the company was Mr. Joseph Fell, and although, as usual, there were unexpected delays in reaching the dividend state it is beyond question that some marvellously rich ore was sold during Fell's management—so rich indeed that it was rumoured that such ore had never been obtained from any mine in Great Britain, but that it was the produce of some rich foreign mine, and had been purchased and sold as Cambrian ore, in order to influence the market for shares. Few doubted that this rumour was based upon fact, but the liquidator—who being an officer of the Court of Chancery is beyond suspicion—has proved it to be groundless by himself raising and selling equally rich ore from the Cambrian Mines. At the Swansea Ticketing on Nov. 7 there were three parcels of Cambrian ore—21 tons of 22 per cent. produce, 23 tons of 17½ per cent. produce, and 10 tons of 10 per cent. produce—included in the sale, and whilst the average price at which the Cambrian ore was purchased by the smelters was 12*l.* 5*s.* per ton, the average for all the ore sold at the same ticketing was but 7*l.* 12*s.* 6*d.*, and the average of the nearest ticketing in Cornwall was but 4*l.* 2*s.* Shareholders will probably now recognise their stupidity in going into liquidation, especially as their money which might have been profitably expended on the mine is being sacrificed in liquidation and litigation expenses. The shareholders in the company of 1877 have been sacrificed through amateur speculators becoming shareholders, and lacking the patience to permit the development of the mine in such a manner as to give them large and permanent profits. Nor is the litigation yet finished, and it is not improbable that the end will be the total absorption in the expenses of liquidators and lawyers of the assets existing when the old company went into liquidation, and of the entire capital of the new one.

The last phase of the litigation is that upon which Mr. Justice Kay has just given his decision; the case has been argued at considerable length both before and since the vacation. There were two applications before the Court—one by Mr. Fell, for leave to bring an action against the company to impeach a deed of Feb. 17, 1882, and the other by the company to obtain the sanction of the Court to that deed. The company was incorporated in May, 1877, and in the same month an agreement was entered into for the sale of the mine to T. H. Green for 70,000*l.* in 35,000 paid up 2*l.* shares. It was said that Green was a mere nominee of Fell, who had bought the property for 2250*l.* The 35,000 shares were allotted, and had been disposed of by Fell. In 1881 the company was ordered to be wound-up under supervision. The liquidator had borrowed money to pay debts and to keep the mines from deteriorating from a new company which was incorporated with a slightly different name in November, 1881, and he had mortgaged the mines and plant for such loans, and the new company had taken possession. The liquidator had been advised to commence proceedings against Mr. Fell to recover the 70,000*l.*, but in order to carry on such proceedings it was necessary to obtain funds, and with that view the new company had been constituted, and the deed of February, 1882, which it was now sought to impeach, had been executed. The general effect of that deed was that the new company were to purchase the mine and to supply money to the old company for the purposes of the litigation against Fell, and inasmuch as, if that litigation were successful, Fell, if he paid the 70,000*l.*, would be entitled to have the mine re-transferred to him, there was a clause in the deed providing for the re-purchase of the mine by the old company in that event. The deed was con-

firmed by a resolution of the company, which, however, was not a special resolution. The majority in favour of it consisted of 430 shareholders, representing 22,489 votes, and the minority of 27 shareholders, representing 7265 votes, of which it was said 6800 belonged to Fell or his nominees, and certain of the directors who had been displaced. On behalf of Mr. Fell various objections were raised to the deed, the principal being—first, that it had not been sanctioned by a "special" resolution; secondly, that it was *ultra vires*, because it contained a right of re-purchase; third, that it was void as being in the nature of maintenance or champerty; and, fourthly, that it was beyond the powers of the new company. Mr. Justice Kay held that a special resolution was only necessary where the winding-up was voluntary, and not where, as in the present case, it was under the supervision of the Court. The obvious purpose of the clause of re-purchase was to enable the plaintiffs in the pending action against Fell to retransfer the mines, and it was within the power of the Court to sanction the agreement notwithstanding this provision. As to the third objection, he held that the essence of the transaction was that it was a mode—perhaps the only practicable mode—of converting the mines and plant of the old company into money, to be used partly for the litigation and partly to prevent deterioration by working the mines, and it was, therefore, not impeachable on the grounds of either maintenance or champerty. The Memorandum of Association of the new company gave them power to effect the transaction. His lordship accordingly made an order in favour of the company, but subject to a condition that if any member of the old company who did not vote in favour of the resolution should give notice to the liquidator seven days after the date of the present order, the shares of such dissentient member should be purchased as provided by sections 161 and 162 of the Companies Act. No order was made as to costs, except that the liquidator might take his costs out of the estate.

The decision is most discouraging to all concerned except the liquidators and the lawyers; it gives the right to the holders of 27,511 shares to claim to be bought out by those who have now possession of the property; but as his lordship only granted seven days for the exercise of the option it is probable that his decision will not come to the knowledge of many of the shareholders until it is long too late to take advantage of the option offered. Every month during which the mine is worked diminishes the probability of the dissatisfied shareholders proving that Mr. Fell's price was exorbitant, whilst to stop the mine would be equally detrimental, so that all that can reasonably be anticipated is that the Cambrian liquidation will long stand as a monument to commemorate the sacrifice of shareholders in liquidation.

THE CLAY CROSS COLLIERIES.

The Clay Cross Collieries have a most interesting history, seeing that they were commenced by George Stephenson, the eminent engineer, who lived and died at Tapton House, near Chesterfield. He was not only connected with several collieries in Derbyshire, but in the adjoining county as well. It was while directing the sinking of one of the Whitwick shafts that the men came upon a remarkable sheet of dolomite, locally called "whinstone," between the coal measures and the New Red Sandstone. It was thought that there was no coal below, and such being suggested to him he only returned the answer "persevere." This the men did, and the coal was found. The commencement of the collieries was in 1827, and for some years they were carried on under the name of George Stephenson and Company, and in 1847 they were transferred to the late Sir W. Jackson and others, when the name was changed to the Clay Cross Company. Since the formation of the company upwards of 7500 acres of coal have been leased, of which more than 2000 acres have been worked out. With such a large area of coal several shafts have been sunk, and these, instead of being named as is usually the case, are numbered. Where the late accident took place the shaft is known as No. 7, and was sunk in 1866 for the purpose of working a coal field of about 1200 acres, and at the same time making a communication with two other of the pits belonging to the company. The diameter of the downcast shaft is 13 ft., and the depth from the surface to the black shale, or Silstone seam is 179 yards. Ventilation is obtained by the ordinary furnace, which is 8½ ft. wide and 7 ft. long, fixed near to the upcast shaft. The furnace, which is on bars and dead plate, was put down in October, 1868, and it has ventilated the pit since that time. The main roads north and south of the bottom, and the cross-cuts on the north side of the incline, and on the south side, are worked by endless-chain haulage. The engine plane is worked by a single rope driven from the chain gearing, the motive power being obtained from a pair of horizontal engines, the steam being taken from boilers at the surface, and conducted down the downcast shaft.

The chain incline is about 450 yards on the south side of the shaft, and connects the south level in No. 7 pit with what was formerly the old south level in No. 2 pit, the workings to the rise of the latter being known as the "top pit," and those on the east, and immediate of the No. 7 levels, being called the "bottom pit." As the workings in the top pit advanced to the rise in a westerly direction it was found necessary to sink a shaft near to Clay Cross, in order to facilitate the entrance to the exits from this part of the workings. The shaft is 9 ft. in diameter and 120 yards deep, having a ventilating furnace 7 ft. wide and 7 ft. long on bars and deadplate, fixed near to the bottom of the pit. The water is pumped to the surface by a direct acting pumping-engine, fixed close to the bottom of No. 7 downcast pit, the steam for the engine being taken from the steam-pipes leading to the hauling-engines. The north and south levels in the No. 7 pit were driven between the years 1868 and 1870. The coal was first worked on the north side in 1869, and on the south side in 1870, the chain incline being driven between 1871 and 1873. The latter forms the connection between the old part of No. 2 pit and No. 7 pit along with the straight-up incline, and communicates with the No. 8 shaft, which ventilates the rise portion of the workings. The dip workings in No. 7 were started in 1869 and 1870, and the coal first worked in 1876. The north cross-cut was driven in 1877, and the coal first worked from there in 1879, this district being the supposed seat of the late explosion. The workings are divided into three districts, and are termed Nos. 1, 2, and 3 flats, the ventilation of the two first flats going up the first gate, and passes round all the workings of the two flats, and returns on the low level of the second flat over an overcast into the main return of the cross-cuts. The third flat is ventilated by air passing over the above-mentioned overcast, from which it goes through a head round the faces, and into the main return. Such is the system adopted at Clay Cross in constructing the different workings. As to the quantity of coal raised by the company, some idea may be formed when we state that they send nearly 300,000 tons of coal annually to London alone, having been credited last month with 30,000 tons.

SUBMARINE ROCK BORERS.—The River Tyne Commissioners have now successfully accomplished the work of boring the rock at Bill Point, which has been blasted and raised by powerful dredgers, the rock being transmitted into hoppers whereby it has been carried and emptied into the sea. The river has so far improved that whereas formerly coals used to be shipped at high water at the Felling at a pressure of 300 tons, and it was required to complete their cargoes at North Shields by means of keels, vessels of 3000 tons burthen are now enabled to sail direct to sea at low water. The Commissioners are now boring the rock on the opposite side from Bill Point. The machine employed is one of Mr. J. G. Cranston's steam-power submarine rock borers, and it has worked excellently. One of these apparatus has also recently been put to work by the Radcliffe Coal Company for the purpose of deepening the harbour at Amble. The steam boiler and machinery is fixed upon a floating craft, and is so arranged that four or more holes can be bored simultaneously. It has been inspected by the well-known engineers of the district, Mr. Forster, engineer, Newcastle Water Company; Mr. Peter Haggis, Mr. W. W. Smith, owner of the Radcliffe Colliery; also Mr. Andrews, owner of Broomhill Colliery, together with his manager and engineer, Mr. Scott and Mr. Stokes. The work effected has given the utmost satisfaction: 16 holes, 3 in. in diameter, are bored 10 ft. in the rock, being equal to 160 ft. of hole bored in a shift of 10 hours. The surface of

the rock is 14 ft. below high water line. Already there has been bored over 4000 ft. of holes in a remarkably short period, which has been effected with great economy. The simplicity of the whole arrangement is considered to be all that need be desired.

NEW SAFETY-LAMP.—M. Tricot, manager of the Mons Gasworks, lately brought before the Association des Gaziers Belges a new fixed lamp, invented by M. Lechein, for burning safely while surrounded by an explosive mixture of air and gas, such as may be present in gasworks or petroleum stores; and also for maintaining combustion in an atmosphere charged with smoke and carbonic acid, as in the passages of a burning theatre. A metal bracket, with orifice in connection with a pipe leading a supply of pure air from a safe distance, is securely fixed to the wall, and is provided with a groove, filled with sand, for receiving a projecting collar at the bottom of the lamp, so as to form an air-tight joint. In the bottom of the lamp is a valve, opening inwards, which keeps it closed until placed in position, when it opens automatically. The cover, made separate for facility of cleaning, is also provided with a sand joint, and the trunco-conical chimney is of such dimensions that no air or gas can enter the lamp by its means; while a sheet of perforated metal or wire gauze, placed across it, affords an additional safeguard. When the source of light is vegetable or mineral oil, the lamp has simply to be lighted, in a pure atmosphere, before being placed in position, as it contains sufficient air to support combustion for two or three minutes, when the air-valve opens. When lighting gas is used, the simplest method is to light a small piece of taper near the burner before fixing the lamp and making a connection with the gas supply pipe, or the gas may be lighted by electricity, or by a fulminating capsule.

COMPOUND ENGINES.—The leading feature in the exhibits of Messrs. John Fowler and Co., at the Smithfield Show at Islington, which opens on Monday, will be that the engines are, for the first time, all constructed on the compound principle. To those who do not understand the arrangement of a compound engine, or the difference between this type and that hitherto in use, it may be explained that in the older type the steam passes through one cylinder only, into which it is admitted at a (usual) pressure of 100 lbs. per square inch. The steam expands whilst working, but at the end of each stroke it is discharged up the chimney still at a comparatively high pressure, the useful energy of which is nearly all wasted. In the compound, two cylinders are used, placed side by side. The boiler (which is of steel, and of extra strength) supplies steam up to 140 lbs. pressure to the smaller cylinder, from which at the end of the stroke, instead of flying up the chimney, it passes into the larger cylinder, which has about three times the capacity of the first. Here the steam continues to expand, and at the end of the stroke is discharged at a pressure a little over that of the atmosphere, so as to keep up a sufficient draught throughout the fire. In practice the compound system is estimated to save about 30 per cent. in water and fuel.

IMPORTANCE OF DRAWING IN DEEP MINES.

The Mining Institute of Cornwall held its usual meeting on Tuesday, under the presidency of Mr. W. Husband, C.E., when an interesting paper on the importance of drawing in deep mines was read by Capt. Bishop, of East Pool, who, in the course of his remarks, said the question of drawing in deep mines became increasingly important. If they were to take a retrospective view of mining before the introduction of strong explosives and boring machinery into their mines, they would find there was not that pressing necessity to facilitate their drawing as at the present day. They had heard again and again that Cornwall was second to no county in her pumping machinery, but that they were a hundred years behind in their drawing department. This he could not fully endorse, because their drawing was compared with the drawing in coal mines, and such a comparison as that was odious, the mode of operation in coal mines being widely different from that in metalliferous mines. But were they doing all they might to make their drawing more efficient? In view of this it was important they should have good winding machinery, and also good shafts. With regard to the winding machinery he was persuaded that in a good many cases by the use of imperfect machinery they were penny wise and pound foolish. Even supposing the mine were poor, he considered it was far cheaper to improve it than to work it in an imperfect state, considering the time lost in making repairs. The pulleys carrying the wire ropes from the drum to the shaft were often defective. The ropes should go straight from the drum to the shaft pulleys, and there never should be what they called holding-down pulleys. These caused great friction and also much damage to the ropes. They had found at East Pool that a wire-rope would last double as long since they had discarded the holding-down pulleys. The next point he insisted on was the importance of good shafts, which in many instances they unfortunately had not got. He considered they were especially defective in their diagonal shafts.

With regard to the direction of the shaft, Capt. Bishop held that any such shaft should be sunk as far as practicable at a given angle, and this should not be altered whatever bends should be in the lode on which the shaft was sunk. In so doing it might incur a cross-cut of 6 or 12 ft. to reach the lode at some levels, the cost of which would be very little compared to the advantage of having a straight shaft. Then, they should be particular as to how they put in rolls to break the angles where the shaft changed from a perpendicular to an underlie. If they wanted to command speed and avoid friction they should put in concave pulleys at least 3 ft. in diameter, and not less than 10 in. wide. In doing so they could draw much faster and at less expense. In the next place the skip-roads should be well constructed. He thought they should put in runners in an underlie shaft 7 in. by 6 in., which would make a good road. There should be no guides under the skip in an underlie shaft, as they frequently came in contact with something, and, consequently, caused loss of time and damage to the ropes. Therefore, avoiding guides and placing a double runner in the downright shaft paid well, especially where the skip was running fast. As a rule, he considered the skips to be too narrow for their length; they were bad for filling and worse for landing. Provided there were room in the shafts the skips should be at least 2 ft. 6 in. wide. He knew they had not always room in the shaft to work a wide skip between the runners. This was the case at East Pool until they adopted the skip now working, which was made to overlap the runners. By having this skip they were enabled to draw about 300 tons of stuff per week more than they did with the old skip. They hoped to be able to do even more than this soon when they had a better mode for filling.

To the importance of this latter point he called special attention. The old method was, as they knew, filling with shovels. Another way was from shoot-plats where the ore was deposited, and by the lifting of an iron door the ore was allowed to run into the skip. If such plats had to be used there had better be a hopper in one end of the plat. Let the ground be cut (say) 15 ft. deep, or below the level or about 12 ft. back from the shaft-piece, then at the further end of the shaft put in a hopper, in the front of this have two doors, and at each door a small shoot leading to the skip, which should hold about one skip of stuff; attach to the shoot a moveable iron lip, and across it, near the lip, an iron door so when the skip came the lip was thrown down, the door was raised, and the skip was easily filled. One man could attend to the filling of these small shoots while the skip was passing through the shaft. A third mode was, supposing a winze be sunk near the shaft, let this be a hopper, so that one trammed at the 190 fm. level be deposited in this hopper and drawn at the 200 fm. level, trammed at the 200 fm. level, drawn at the 210 fm. level, and so on. Then there could be two small shoots put in from the plat leading from the shaft, which would hold one skip of stuff each, with an iron lip, and a door across it as before described. While one man was engaged in filling skips from the small shoots, another man could be engaged in getting a wagon filled from the hopper, this wagon being upset in the shoot would be sufficient to fill the skip. This, he considered, would be a great advantage in many respects—first, because there never could be but one skip full of ore in the shoot at a time. In the second place, the ore could be so arranged that a large quantity could be put in these hoppers, then when they began to draw at a particular level they

could continue to draw the whole of the ore without changing from level to level as was often done, causing great delay; a third advantage, supposing something went wrong with the winding machinery, or in the shaft, the trammers could only fill the plat, and were then idle. But, if they had the large hoppers to fill they could be fully employed and there would not be a loss of time.

BRATSKBERG.—The general meeting is called for Dec. 14, the proceedings of which are looked to with much interest. It is believed that the report and accounts will be of a very satisfactory nature, and should the results of the past 12 months justify a dividend in due course, it will be an unusual fact in the first year of a company.

SENTEIN.—The past history of this mine is considered to indicate that under good management it has a great earning capacity. The reports from the mine, published from time to time, show that the vein is of great productiveness; it yields from 1200 to 1600 tons of ore per month. In the last yearly report it was said:—"No discovery has been made in the No. 4 end." The manager, Nov. 15, writes:—"In No. 4 level cross-cut we have this morning intersected the main part of the lode, and from what I can see of it there is not the least doubt that we have now commenced to cut through a good course of ore."

VICTORIA GOLD, VENEZUELA.—A communication has been received from Mr. Danby, C. and M.E., announcing his arrival at Trinidad en route to take up the position to which he has been appointed by the directors of this company, who are very hopeful of receiving important information from him in the early part of the new year 1883.

SILVER HILL.—From this week's report it appears that the tunnel is now close to a good lode. All the indications are most favourable, and we shall not be surprised any day to hear of a very important discovery. The Wheal Brothers lode continues to yield silver ore in quantities worth saving for treatment. All the great deposits in this lode have been in bunches, and as the indications are good for improved value a bunch or bonanza may be looked for very soon. In the event of a good find Silver Hill shares will go to a very high price.

ST. JUST UNITED.—At the meeting, on Nov. 21, the accounts showed a profit on the 16 weeks' working of 1717. 1s. 8d., reducing the debit balance to 1217. 17s. 10d. to Sept. 23. The bankers' balance, including labour cost to Nov. 18, was 1279. 16s. 9d., which was allowed. Capt. Bennetts and Clemens reported that the principal reason why they had not sold more tin in the past 16 weeks is that for the first month the men who work on the best tin ground in the 140 and above were engaged timbering the dislocated ground, that the operations might be carried on in safety. Their confidence in the ultimate future is as good as ever.

TRESAVEAN MINE.

SIR,—I was present at the starting of the engine on these mines a few months ago, and having business in the neighbourhood on Wednesday last I took the opportunity of visiting the ground once more. The progress made in the interval is simply astonishing. A tram line is laid from Caddy's lode, where many hundreds of tons of excellent ore are accumulated to the stamping engine, where 24 heads of stamps are at work, and where 12 more stamps will begin working in a week's time. A large mass of tin has already passed through the buddles and sufficient reserves are laid open to keep 100 heads of stamps in constant work night and day. The quality of the ore at Caddy's lode is above average, but in the newly discovered Gooch's lode it is splendid. I picked some stones at random which the men at work estimated to be worth 150 lbs. of tin to the ton of stuff, and saw picked specimens in the counting-house at least half tin. Many tributaries are at work and a new copper and tin lode has just been discovered at the deep adit.

When it is remembered that all these riches are above adit, that the old part of the mine, which is now being forked, returned over 1,000,000 of ore, and that the company has a long run of virgin ground proving equally rich as the old part, it appears to me that the managers are thoroughly justified in their confident expectations that Tresavean will be second to no mine in England, not even to the famous Dolcoath, in the quantity of mineral which it will produce and in the profits it will pay. The pumping engine is working as smoothly as oil and has forked about 60 fathoms. At the 75 fathoms are very large copper reserves. A SHAREHOLDER
London, Dec. 1.

LEAD ORES.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 23	Prince Patrick	10	£ 9 7 0	Adam Eytan.
30	Roman Gravel	51	£ 9 5 6	Runcorn Smelting Co.
— ditto	—	50	9 3 6	ditto
— ditto	—	150	9 2 0	Walker, Parker, & Co.
BLENDE.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 23	Cwmystwith	40	£ 3 6 0	Grenfell and Sons.
30	Frongoch	150	3 6 0	ditto
— ditto	—	50	3 1 0	ditto
— ditto	—	20	2 12 0	Vivian and Sons.
COPPER.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 30	South Darren	15	£ 7 7 0	Vivian and Sons.
— ditto	—	40	2 2 6	Nevill, Druce, and Co.

A GENTLEMAN, who has an influential business connection **SEEKS THE CO-OPERATION OF A CAPITALIST** in a sound MINING VENTURE. This is an exceptionally favourable opportunity for a party with means, since the risk is slight, with certain profits. None but principals need apply to "J. S., 21, Carter-street, Greenheys, Manchester.

NOTICE.

CAPT. A. FRANCIS, who has had upwards of 40 years' experience in practical mining, would give ANY INFORMATION GRATUITOUSLY as to three Silver-Lead Mines, and one Tin Mine, all in full work, and which will soon enter the Dividend List, when prices must go to a high figure, not improbably in six months in each case to ten times their now selling price. Address, Goglnah, R.S.O., Cardiganshire.

PIERREFITTE MINING COMPANY (LIMITED).—A FEW of this company's TEN PER CENT. DEBENTURES FOR SALE at par. They are redeemable in nine years by annual drawings, interest (coupons attached to Bonds) being paid half-yearly, on 1st May and 1st November. For further information, apply to "F. W. C., Park Side, Kew-road, Richmond, Surrey.

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STOCKBROKERS,

42, POULTRY, LONDON, E.C.

FOREIGN MINES.

ALAMILLOS.—Nov. 22: The lode in the 20, driving east of San Martin shaft has produced 1 ton of ore per foot in the last week. In the same level, driving west of San Martin shaft, the lode has improved to 1 ton per foot. In the 40, driving east of San Felipe shaft, the lode is hard and poor. In the 60, driving east of San Felipe shaft, the lode is hard and poor. In the 80, driving east of San Felipe shaft, the lode is hard and poor. In the 100, driving east of San Felipe shaft, the lode is hard and poor. In the 120, driving east of San Felipe shaft, the lode is hard and poor. In the 140, driving east of San Felipe shaft, the lode is hard and poor. In the 160, driving east of San Felipe shaft, the lode is hard and poor. In the 180, driving east of San Felipe shaft, the lode is hard and poor. In the 200, driving east of San Felipe shaft, the lode is hard and poor. In the 220, driving east of San Felipe shaft, the lode is hard and poor. In the 240, driving east of San Felipe shaft, the lode is hard and poor. In the 260, driving east of San Felipe shaft, the lode is hard and poor. In the 280, driving east of San Felipe shaft, the lode is hard and poor. In the 300, driving east of San Felipe shaft, the lode is hard and poor. In the 320, driving east of San Felipe shaft, the lode is hard and poor. In the 340, driving east of San Felipe shaft, the lode is hard and poor. In the 360, driving east of San Felipe shaft, the lode is hard and poor. In the 380, driving east of San Felipe shaft, the lode is hard and poor. In the 400, driving east of San Felipe shaft, the lode is hard and poor. In the 420, driving east of San Felipe shaft, the lode is hard and poor. In the 440, driving east of San Felipe shaft, the lode is hard and poor. In the 460, driving east of San Felipe shaft, the lode is hard and poor. In the 480, driving east of San Felipe shaft, the lode is hard and poor. In the 500, driving east of San Felipe shaft, the lode is hard and poor. In the 520, driving east of San Felipe shaft, the lode is hard and poor. In the 540, driving east of San Felipe shaft, the lode is hard and poor. In the 560, driving east of San Felipe shaft, the lode is hard and poor. In the 580, driving east of San Felipe shaft, the lode is hard and poor. In the 600, driving east of San Felipe shaft, the lode is hard and poor. In the 620, driving east of San Felipe shaft, the lode is hard and poor. In the 640, driving east of San Felipe shaft, the lode is hard and poor. In the 660, driving east of San Felipe shaft, the lode is hard and poor. In the 680, driving east of San Felipe shaft, the lode is hard and poor. In the 700, driving east of San Felipe shaft, the lode is hard and poor. In the 720, driving east of San Felipe shaft, the lode is hard and poor. In the 740, driving east of San Felipe shaft, the lode is hard and poor. In the 760, driving east of San Felipe shaft, the lode is hard and poor. In the 780, driving east of San Felipe shaft, the lode is hard and poor. In the 800, driving east of San Felipe shaft, the lode is hard and poor. In the 820, driving east of San Felipe shaft, the lode is hard and poor. In the 840, driving east of San Felipe shaft, the lode is hard and poor. In the 860, driving east of San Felipe shaft, the lode is hard and poor. In the 880, driving east of San Felipe shaft, the lode is hard and poor. In the 900, driving east of San Felipe shaft, the lode is hard and poor. In the 920, driving east of San Felipe shaft, the lode is hard and poor. In the 940, driving east of San Felipe shaft, the lode is hard and poor. In the 960, driving east of San Felipe shaft, the lode is hard and poor. In the 980, driving east of San Felipe shaft, the lode is hard and poor. In the 1000, driving east of San Felipe shaft, the lode is hard and poor. In the 1020, driving east of San Felipe shaft, the lode is hard and poor. In the 1040, driving east of San Felipe shaft, the lode is hard and poor. In the 1060, driving east of San Felipe shaft, the lode is hard and poor. In the 1080, driving east of San Felipe shaft, the lode is hard and poor. In the 1100, driving east of San Felipe shaft, the lode is hard and poor. In the 1120, driving east of San Felipe shaft, the lode is hard and poor. In the 1140, driving east of San Felipe shaft, the lode is hard and poor. In the 1160, driving east of San Felipe shaft, the lode is hard and poor. In the 1180, driving east of San Felipe shaft, the lode is hard and poor. In the 1200, driving east of San Felipe shaft, the lode is hard and poor. In the 1220, driving east of San Felipe shaft, the lode is hard and poor. In the 1240, driving east of San Felipe shaft, the lode is hard and poor. In the 1260, driving east of San Felipe shaft, the lode is hard and poor. In the 1280, driving east of San Felipe shaft, the lode is hard and poor. In the 1300, driving east of San Felipe shaft, the lode is hard and poor. In the 1320, driving east of San Felipe shaft, the lode is hard and poor. In the 1340, driving east of San Felipe shaft, the lode is hard and poor. In the 1360, driving east of San Felipe shaft, the lode is hard and poor. In the 1380, driving east of San Felipe shaft, the lode is hard and poor. In the 1400, driving east of San Felipe shaft, the lode is hard and poor. In the 1420, driving east of San Felipe shaft, the lode is hard and poor. In the 1440, driving east of San Felipe shaft, the lode is hard and poor. In the 1460, driving east of San Felipe shaft, the lode is hard and poor. In the 1480, driving east of San Felipe shaft, the lode is hard and poor. In the 1500, driving east of San Felipe shaft, the lode is hard and poor. In the 1520, driving east of San Felipe shaft, the lode is hard and poor. In the 1540, driving east of San Felipe shaft, the lode is hard and poor. In the 1560, driving east of San Felipe shaft, the lode is hard and poor. In the 1580, driving east of San Felipe shaft, the lode is hard and poor. In the 1600, driving east of San Felipe shaft, the lode is hard and poor. In the 1620, driving east of San Felipe shaft, the lode is hard and poor. In the 1640, driving east of San Felipe shaft, the lode is hard and poor. In the 1660, driving east of San Felipe shaft, the lode is hard and poor. In the 1680, driving east of San Felipe shaft, the lode is hard and poor. In the 1700, driving east of San Felipe shaft, the lode is hard and poor. In the 1720, driving east of San Felipe shaft, the lode is hard and poor. In the 1740, driving east of San Felipe shaft, the lode is hard and poor. In the 1760, driving east of San Felipe shaft, the lode is hard and poor. In the 1780, driving east of San Felipe shaft, the lode is hard and poor. In the 1800, driving east of San Felipe shaft, the lode is hard and poor. In the 1820, driving east of San Felipe shaft, the lode is hard and poor. In the 1840, driving east of San Felipe shaft, the lode is hard and poor. In the 1860, driving east of San Felipe shaft, the lode is hard and poor. In the 1880, driving east of San Felipe shaft, the lode is hard and poor. In the 1900, driving east of San Felipe shaft, the lode is hard and poor. In the 1920, driving east of San Felipe shaft, the lode is hard and poor. In the 1940, driving east of San Felipe shaft, the lode is hard and poor. In the 1960, driving east of San Felipe shaft, the lode is hard and poor. In the 1980, driving east of San Felipe shaft, the lode is hard and poor. In the 2000, driving east of San Felipe shaft, the lode is hard and poor. In the 2020, driving east of San Felipe shaft, the lode is hard and poor. In the 2040, driving east of San Felipe shaft, the lode is hard and poor. In the 2060, driving east of San Felipe shaft, the lode is hard and poor. In the 2080, driving east of San Felipe shaft, the lode is hard and poor. In the 2100, driving east of San Felipe shaft, the lode is hard and poor. In the 2120, driving east of San Felipe shaft, the lode is hard and poor. In the 2140, driving east of San Felipe shaft, the lode is hard and poor. In the 2160, driving east of San Felipe shaft, the lode is hard and poor. In the 2180, driving east of San Felipe shaft, the lode is hard and poor. In the 2200, driving east of San Felipe shaft, the lode is hard and poor. In the 2220, driving east of San Felipe shaft, the lode is hard and poor. In the 2240, driving east of San Felipe shaft, the lode is hard and poor. In the 2260, driving east of San Felipe shaft, the lode is hard and poor. In the 2280, driving east of San Felipe shaft, the lode is hard and poor. In the 2300, driving east of San Felipe shaft, the lode is hard and poor. 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In the 4140, driving east of San Felipe shaft, the lode is hard and poor. In the 4160, driving east of San Felipe shaft, the lode is hard and poor. In the 4180, driving east of San Felipe shaft, the lode is hard and poor. In the 4200, driving east of San Felipe shaft, the lode is hard and poor. In the 4220, driving east of San Felipe shaft, the lode is hard and poor. In the 4240, driving east of San Felipe shaft, the lode is hard and poor. In the 4260, driving east of San Felipe shaft, the lode is hard and poor. In the 4280, driving east of San Felipe shaft, the lode is hard and poor. In the 4300, driving east of San Felipe shaft, the lode is hard and poor. In the 4320, driving east of San Felipe shaft, the lode is hard and poor. In the 4340, driving east of San Felipe shaft, the lode is hard and poor. In the 4360, driving east of San Felipe shaft, the lode is hard and poor. In the 4380, driving east of San Felipe shaft, the lode is hard and poor. 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In the 5180, driving east of San Felipe shaft, the lode is hard and poor. In the 5200, driving east of San Felipe shaft, the lode is hard and poor. In the 5220, driving east of San Felipe shaft, the lode is hard and poor. In the 5240, driving east of San Felipe shaft, the lode is hard and poor. In the 5260, driving east of San Felipe shaft, the lode is hard and poor. In the 5280, driving east of San Felipe shaft, the lode is hard and poor. In the 5300, driving east of San Felipe shaft, the lode is hard and poor. In the 5320, driving east of San Felipe shaft, the lode is hard and poor. In the 5340, driving east of San Felipe shaft, the lode is hard and poor. In the 5360, driving east of San Felipe shaft, the lode is hard and poor. In the 5380, driving east of San Felipe shaft, the lode is hard and poor. In the 5400, driving east of San Felipe shaft, the lode is hard and poor. In the 5420, driving east of San Felipe shaft, the lode is hard and poor. 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In the 5960, driving east of San Felipe shaft, the lode is hard and poor. In the 5980, driving east of San Felipe shaft, the lode is hard and poor. In the 6000, driving east of San Felipe shaft, the lode is hard and poor. In the 6020, driving east of San Felipe shaft, the lode is hard and poor. In the 6040, driving east of San Felipe shaft, the lode is hard and poor. In the 6060, driving east of San Felipe shaft, the lode is hard and poor. In the 6080, driving east of San Felipe shaft, the lode is hard and poor. In the 6100, driving east of San Felipe shaft, the lode is hard and poor. In the 6120, driving east of San Felipe shaft, the lode is hard and poor. In the 6140, driving east of San Felipe shaft, the lode is hard and poor. In the 6160, driving east of San Felipe shaft, the lode is hard and poor. In the 6180, driving east of San Felipe shaft, the lode is hard and poor. In the 6200, driving east of San Felipe shaft, the lode is hard and poor. 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ADVISES ON ALL MINING MATTERS.

NOBEL'S DYNAMITE



Manufactured and sold by

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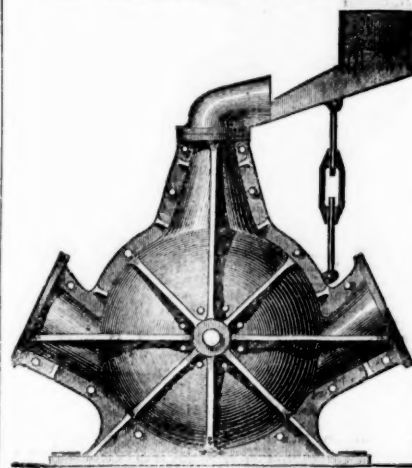
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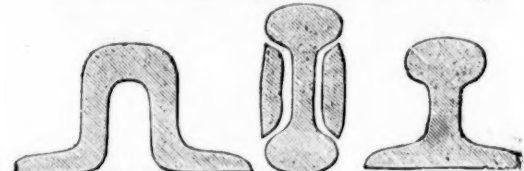
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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Paid.	Last wk.	Clos. pr.	Total div.	Per sh.	Last pd.
3200 Blue Hills, t, St. Agnes	4 6	1 1/4	3 1/4	0 4	0 0	0 0
6000 Carn Brea, t, Illogan	9 7	1 1/4	8 5/8	52 11	8 0	0 0
4000 Cragmantach, t, Cardigan	5 0	0 0	5 0	0 0	0 0	0 0
12000 Devon Gr. Consols, t, Tavistock	1 0	0 0	1 0	0 0	0 0	0 0
4200 Dolcoath, t, Carnarvon	10 14	10	72 1/2	67 63	118 7	0 0
6000 East Pool, t, Illogan	0 9	61	45 50	32 16	110	0 0
12000 Frongoch, t, Cardigan (11000 sh. iss.)	2 0	0 0	2 1/2	0 4	0 0	0 0
12000 Great Holway, t, Flintshire	5 0	0 0	5 1/2	0 5	0 0	0 0
15000 Great Laxey, t, Isle of Man	4 0	0 0	18 1/2	23 16	0 0	0 0
6000 Green Hurth, t, Durham	0 6	0 0	8 1/4	4 1	0 0	0 0
20000 Grosvenor, t, Cardigan	2 6	0 0	1 1/2	0 16	4 1	0 0
12000 Gunfistake (Chitlers), t, e	2 2	0 0	3 3/4	0 13	0 0	0 0
2800 Isle of Man, t, Isle of Man	25	0 0	3 3/4	0 0	0 0	0 0
6000 Killfret, t, Chacewater	4 3	0 0	3 1/4	0 0	0 0	0 0
20000 Leadhills, t, Lanarkshire	6 0	0 0	3 3/4	0 18	0 0	0 0
400 Lisburne, t, Cardiganshire	18 15	0 0	0 0	0 13	0 0	0 0
10000 Melanear, t, Hayle	2 0	0 0	4 1/2	1 18	0 0	0 0
30000 Miners Mining Co., t, Wrexham	5 0	0 0	9 8	69 4	0 0	0 0
20000 Mining Co. of Ireland, t, e	7 0	0 0	0 0	24 0	0 0	0 0
8000 Mona, t, Anglesea	5 0	0 0	4 1/2	0 18	0 0	0 0
11200 North Hendre, t, Wales	1 10	0 0	0 0	0 11	0 0	0 0
8146 Ditto	1 5	0 0	0 0	0 11	0 0	0 0
2000 North Levan, t, St. Just	13 6	0 0	2 1/2	4 16	0 0	0 0
4760 Penhalls, t, St. Agnes	4 0	0 0	1 1/4	0 37	0 0	0 0
6000 Pennant, t, North Wales	5 0	0 0	5 4 1/2	0 10	0 0	0 0
12000 Phoenix United, t, e, Linkinhorne	6 0	3 3	2 2 1/2	17 4	0 0	0 0
10000 Red Rock, t, Cardigan	1 0	0 0	0 0	0 18	0 0	0 0
12000 Roman Gravel, t, Salop	7 10	0 0	9 9 1/2	4 4	0 0	0 0
4000 Rhydalun, t, Wales	10 0	0 0	0 0	0 5	0 0	0 0
512 South Caradon, t, St. Cleer	1 5	0 0	27 1/2	27 1/2	749 3	0 0
6123 South Curdow, t, e, Camborne	6 5	6 6	9 1/2	9 9	0 0	0 0
9000 South Darren, t, Cardigan	1 16	0 0	0 0	0 4	0 0	0 0
6000 South Wheel Franks, t, Illogan	9 2	4 4	9 7 1/4	40 15	6 10	0 0
5000 Tincroft, t, e, Pool, Illogan	11 10	0 0	5 1/2	51 3	6 5	0 0
15000 Van, t, Linkinhorne	4 5	0 0	5 1/2	0 25	10 2	0 0
12000 West Holway, t, Flintshire	4 5	0 0	1 1/2	1 0	0 0	0 0
512 West Tolgus, t, Redruth	99 0	0 0	15 17 1/2	33 0	0 0	0 0
2400 West Wheel Seton, t, Camborne	15 0	0 0	22 1/2	17 1/2	111 10	0 0
6000 West Wasset, t, Illogan	7 0	4 4	7 1/4	23 8	6 6	0 0
6000 West Kitty, t, St. Agnes	0 12	0 0	14 13 1/4	0 8	0 0	0 0
12000 Wheel Crebor, t, Tavistock	2 4	0 0	3 1/4	0 16	3 2	0 0
1024 Wheel Eliza Consols, t, St. Austell	13 0	0 0	10 1/2	53 10	0 0	0 0
15000 Wheel George, t, e, Camborne	1 0	0 0	1 1/2	1 1/2	0 0	0 0
6000 Wheel Grenville, t, Camborne	15 0	0 0	9 1/2	7 1/2	12 6	0 0
4200 Wheel Kitty, t, St. Agnes	5 12	0 0	2 1/2	12 18	6 0	0 0
3000 Wheel Pevor, t, Redruth	8 1	0 0	4 1/4	8 13	6 4	0 0

FOREIGN DIVIDEND MINES.

Shares.	Paid.	Last wk.	Clos. pr.	Total div.	Per sh.	Last pd.
35500 Alamillos, t, Spain	2 0	0 0	2 1/2	2 8	2 0	0 0
130000 Almada and Tinto Consols, t, Spain	1 0	0 0	3 1/4	0 6	3 0	0 0
20000 Australian, t, South Australia	7 7	6 6	2 1/4	7 6	0 0	0 0
15000 Birdseye Creek, t, California	4 0	0 0	1 1/4	1 0	0 0	0 0
20000 Cape Copper Mining, t, South Africa	8 0	0 0	5 1/2	50 7	6 2	0 0
50000 Copago, t, Chile	3 0	0 0	3 1/4	1 13	0 0	0 0
7000 English and Australian, t, e, S. Aust.	2 0	0 0	1 1/2	0 3	0 0	0 0
2000 Eng. Aus., t, Viet. (20000 sh.)	1 0	0 0	1 1/2	0 3	0 0	0 0
25000 Fortuna, t, Spain	2 0	0 0	3 1/4	8 2	0 0	0 0
60000 Frontino and Bolivia, t, New Gran.	2 0	0 0	2 1/2	3 10	0 0	0 0
210000 La Plata, t, Leendville	2 0	0 0	2 1/2	0 12	11 0	0 0
15000 Linares, t, Spain	3 0	0 0	4 3/4	19 0	10 0	0 0
181564 Mason and Barry, t, Portugal	10 0	0 0	15 1/2	1 15	0 0	0 0
60000 New Quenaca, t, Venezuela	5 0	4 4	5 1/2	0 9	0 0	0 0
1000 Ditto, Debutentes	100 0	102 0	6 1/2	6 1/2	0 0	0 0
3000 Oregon, t, Oregon, U.S. (pref. sh.)	4 0	0 0	7 6 1/4	0 2	6 0	0 0
50000 Puncilio, t, Chile	4 0	0 0	7 6 1/4	1 6	0 0	0 0
25000 Pitangui, t, Brazil (in 6000 £1 pd.)	0 10	0 0	0 0	0 1	0 0	0 0
14000 Pontbaid, t, France	20 0	0 0	14 12 1/4	23 17	0 0	0 0
100000 Port Phillip, t, Clunes (22 shares)	1 0	0 0	3 1/4	14 2	0 0	0 0
50000 Rara Fortuna, t, Argentina	1 0	0 0	0 0	3 0	0 0	0 0
50000 Richmond Consols, t, Nevada	1 0	0 0	6 1/2	14 6	0 0	0 0
24532 Rio Tinto, t, Mortgage Bds., Huelva	100 0	0 0	99 10 1/2	5 1/2	0 0	0 0
350000 Ditto, shares	10 0	0 0	24 1/2	2 2	0 0	0 0
40000 Santa Barbara, t, Brazil	10 0	0 0	0 0	0 12	9 0	0 0
120000 Scottish-Australian Mining Co., t, e	1 0	0 0	2 1/4	12 1/2	0 0	0 0
80000 Ditto, New	0 10	0 0	1 1/4	12 1/2	0 0	0 0
22500 Sierra Buttes, t, California	2 0	0 0	1 1/4	2 4	0 0	0 0
40525 Ditto, Plumas Eureka	2 0	0 0	1 1/4	2 15	0 0	0 0
23000 St. John del Rey (145 Stock and multiple deal in)	10 0	0 0	170 180	p. p. for half-year, June 1882	0 0	0 0
180000 Tambora, t, g, Wynaad	1 0	0 0	1 1/4	0 6	0 0	0 0
91896 Thariss, t, e, Spain (31100, 74, p. 1)	10 0	0 0	39 37 1/2	31 6	0 0	0 0
20000 Tolima, t, g, Colombia (A & B shares)	5 0	0 0	4 1/4	7 9	2 1	0 0
25000 Victoria, t, Australia	1 0	0 0	0 0	0 13	10 0	0 0
100000 Victoria (Savada, U.S.) Deb. Bds.	1 0	0 0	0 0	0 2	0 0	0 0
5000 West Andes, t, Colombia	5 0	0 0	10 9	3 17	6 0	0 0
2100 W. Prussian (5500 pref. sh. £10 pd.)	10 0	0 0	0 0	1 0	0 0	0 0
54800 Yorke Pen., t, South Aust. Pref.	1 0	0 0	1 1/4	0 3	0 0	0 0

* Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.	Paid.	Last wk.	Clos. pr.
25000 Aberdare, t, Denbigh	1 10	0 0	1 1/2
30000 Alston United, t, e, Cumberland	1 0	0 0	1 1/2
12000 Anderton, t, e, Devonshire	1 0	0 0	1 1/2
12000 Asheton, t, Carnarvonshire	5 0	0 0	0 0
12000 Bedford Unit, t, e, Tavis (21 lib.)	0 14	0 0	2 1/2
30000 Bodliff, t, e, Denbighshire	1 0	0 0	0 0
30000 British, t, e, Wrexham	1 0	0 0	1 1/2
30000 Beuno Consols, t, Flintshire	1 0	0 0	1 1/2
20000 Bwch United, t, Cardigan	0 17	6 6	3 1/4
50000 Carn Camborne, t, e, Camborne	1 0	0 0	1 1/2
20000 Carnarvon, t, e, Carnarvonshire	1 0	0 0	1 1/2
37500 Carnarvonshire Cons., t, e, Llanrwst	2 0	0 0	1 1/2
6000 Cathedral Cons., t, e, Gwynedd	0 18	0 0	1 1/2
20000 Central Foxdale, t, e, Isle of Man	1 17	6 6	0 0
24500 Cook's Kitchen, t, Illogan	30 12	33	30 35
10000 Crook Great Cons. (4500 issued)	1 0	0 0	0 0
6400 Crook Burn, t, Cumberland	0 17	0 0	3 1/2
45000 D'Eschey Mountain, t, e, Llanrwst	0 10	0 0	1 1/2
12000 Devent, t, Durham	4 0	0 0	1 1/2
53000 Devon, t, e, Tavistock	1 0	0 0	0 0
6000 Devon Friendship, t, e, Tavistock	1 0	0 0	3 1/2
12000 Devon Great United (21 shares)	1 5	0 0	3 1/2
50000 Drake's, t, e, Calstock	0 15	0 0	3 1/2
10000 Dubby Syke, t, Durham	1 0	0 0	0 0
12000 East Blue Hills, t, St. Agnes	0 5	0 0	3 1/2
6000 East Botallack, t, St. Just	0 12	6 6	1 1/2
6144 East Caradon, t, St. Cleer	4 13	0 0	1 1/2
4000 East Chiverton, t, e, Perranarabuth	10 12	3 1/2	1 1/2
30000 E. Craven Moor, t, e, Pateley Bridge	1 0	0 0	3 1/2
15000 East Devon Cons., t, e, Buckfastleigh	2 0	0 0	0 0
30000 East Herodfoot, t, e, Liskeard	1 0	0 0	1 1/2
20000 East Long Lake, t, e, Wales	1 0	0 0	0 0
25500 East Roman Gravel, t, e, Salop	1 0	0 0	3 1/2
10000 East Tregem, t, e, Marazion	5 0	0 0	0 0
18000 East Van, t, e, Llanidloes	1 0	0 0	0 0
2048 East Wheel Lovell, t, Helston	15 13	6 6	3 1
100000 East Wharfe, Rose, t, e, Newlyn East	1 0	0 0	1 1/2
12000 Gawton, t, e, Tavistock	1 0	0 0	3 1/2
40000 Gawn, t, e, Tavistock	1 0	0 0	3 1/2
14000 Glenroy, t, e, Isle of Man	4 0	0 0	3 1/2
10000 Gollards, t, e, Carnarvon	1 0	0 0	1 1/2
30000 Goginan, t, e, Cardiganshire	1 0	0 0	1 1/2
25000 Goodere, t, St. Cleer	1 0	0 0	1 1/2
5000 Gorse and Morlyn Cons., t, e, Flint	2 0	0 0	3 1/2
20000 Great Dylliff (10000 sh. issued)	1 0	0 0	3 1/2
10000 Great Polgoth United, t, e	1 0	0 0	3 1/2
6000 Great West Chiverton, t, St. Agnes	0 5	0 0	3 1/2
10000 Gwyn-y-Mynydd, t, e, Flint (pref.)	4 0	0 0	1 1/2
70000 Gwydyr Amal, t, e, Carnarvon	1 0	0 0	0 0
12000 Herodfoot, t, e, Liskeard	0 18	0 0	3 1/2
18000 Hingston Down, t, e, Calstock	0 13	0 0	3 1/2
20000 Kirk Michael, t, e, Llanidloes	1 0	0 0	0 0
25000 Kite Hill Gr. Cons., t, e, Carnarvon (21 sh.)	0 15	0 0	3 1/2
15000 Lady Ann, t, e, Llanidloes	1 0	0 0	0 0
30000 Lady Ashburton, t, e, Callington	1 0	0 0	3 1/2
25000 Langford, t, e, Cardiganshire	0 10	0 0	3 1/2
10000 Landegla, t, e, Wales	1 0	0 0	0 0
5120 Lovell, t, e, Wendron	0 16	0 0	3 1/2
9000 Marke Valley, t, e, Linkinhorne	7 3	0 0	3 1/2
6000 Medlyn Moor, t, e, Wendron	3 15	10	3 1/2
20000 Mona Consols, t, e, Anglesea	1 0	0 0	1 1/2
15000 Monkstown, t, e, Devon	2 0	0 0	0 0
20000 Mostyn Consols, t, e, Flint	1 0	0 0	3 1/2
10000 Mynydd Gwladys, t, e, Cardiganshire	1 0	0 0	0 0
12000 Morla Du, t, e, Anglesea	1 0	0 0	3 1/2
80000 Mounts Bay, t, e, Breage	1 0	0 0	3 1/2
6144 Mount Carbis, t, e, Redruth	1 10	0 0	3 1/2
12000 New Caradon, t, St. Cleer	0 5	0 0	3 1/2
2400 New Cook's Kitchen, t, Illogan	8 18	0 0	7 4 1/2
8000 New Dolcoath, t, e, Camborne	3 0	0 0	0 0
12000 New West Caradon, t, e, Liskeard	0 10	0 0	0 0
10000 New Holmbush, t, e, Callington	0 16	0 0	2 1/2
6000 New Kitty, t, St. Agnes	0 16	0 0	2 1/2
12000 New Penrose, t, e, Helston	1 0	0 0	1 1/2
15000 New Redmoor, t, e, Callington	1 5	0 0	0 0
17500 New Terras, t, e, St. Austell	0 7	6 6	0 0
3500 New Tincroft, t, e, Lelant	6 0	0 0	0 0
12000 New Trumpet, t, e, Wendron	1 0	0 0	1 1/2
12000 New West Caradon, t, e, Liskeard	0 10	0 0	0 0
3000 New Wheel Pevor, t, Redruth	0 10	0 0	3 1/2
35000 New Wye Valley, t, e, Montgomery	1 0	0 0	1 1/2
12000 North Blue Hills, t, St. Agnes	0 2	6 6	1 1/2
5328 North Busy, t, e, Scourie	1 9	8 8	3 1/2
10000 N. D'Eschey Mount, t, e, Cardigan	1 0	0 0	0 0
25000 North Goginan, t, e, Cardiganshire	1 0	0 0	1 1/2

NON-DIVIDEND MINES—continued.

Shares.	Paid.	Last wk.	Clos. pr.
6400 North Green Harth,* (3400 lib. pd.)	0 2	6 6	3 1/2
25000 North Grogwinion,* s, e, Cardigan	1 0	0 0	1 1/2
12000 North Herodfoot, t, Liskeard	0 12	6 6	3 1/2
50000 North Molton,* e, m. a., Devon	1 0	0 0	3 1/2
8000 North Penstruthal, t, e, Gwynedd	2 11	6 6	3 1/2
2338 North Trekerby, t, e, St. Agnes	1 0	0 0	3 1/2
8000 Northern, t, e, Durham	8 17	10	3 1/2
40000 Okel Tor,* t, e, e, Calstock	1 0	0 0	0 0
8000 Old Shepherds, t, e, Cornwall	1 0	0 0	1 1/2
60000 Owen Vean & Tregur,* t, e, e, Marazion	1 0	0 0	1 1/2
12000 Pandora,* t, e, Carnarvon	2 0	0 0	3 1/2
45000 Parys Corporation,* t, e, Anglesea	1 0	0 0	3 1/2
7500 Pateley Bridge, t, e, Yorkshire	1 0	0 0	3 1/2
8000 Pedin-an-dra, t, e, Redruth	3 7	0 0	0 0
12000 Pelyn Wood, e, Lanvory	0 2	0 0	2 1/2
20000 Penegareg, t, e, Carmarthenshire	1 0	0 0	3 1/2
12000 Pen-y-Orsedd, t, e, Flintshire	1 0	0 0	3 1/2
15000 Perran Consols,* t, e, Cornwall	1 0	0 0	3 1/2
12000 Perran Wheat Alfre	0 2	6 6	3 1/2
3000 Poleroba, t, e, Crown	0 12	6 6	3 1/2
10000 Polrose, t, e, Cornwall	1 5	2 1/2	3 1/2
10000 Port Nigel,* s, t, e, Carnarvonshire	2 0	0 0	3 1/2
6000 Prince Royal, t, e, s, t, e, St. Agnes	1 0	6 6	3 1/2
12000 Prince of Wales, e, s, e, Calstock	0 19	6 6	3 1/2
50000 Royaltan,* t, St. Columb	1 0	0 0	1 1/2
35000 Russell United,* s, e, Tavistock	0 15	6 6	3 1/2
30000 Silver Hill,* e, e, e, Callington	1 0	0 0	1 1/2
50000 Silver, t, e, t, e, Whitford	1 0	0 0	1 1/2
40000 Sortridge, t, e,			